

ARCHIVES OF SURGERY.

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ON SYPHILITIC INFLAMMATIONS OF THE EAR.

My impression is that whilst deafness and facial paralysis, in connection with acquired syphilis, are both extremely rare, the former is rather the more frequent of the two. I have seen several very painful cases of symmetrical, absolute and permanent deafness in the secondary stage of syphilis. The complication of facial paralysis, although it occurs in exactly the same class of cases and is due to the same character of lesion, is less frequent, usually less complete and more easily recovered from, and I have never seen it on the two sides at once. It is also generally curable by treatment. Case No. IV. will illustrate these statements. Mr. P—— had, whilst suffering from syphilitic iritis, a sudden development of complete facial paralysis and deafness on one side. He recovered from the former, but remained ever afterwards absolutely deaf in the affected ear. A parallel occurrence took place in the case of Captain P——, and also in that of Mr. E. W——. It is not possible to be too prompt or too vigorous in the adoption of specific measures in any case of acquired syphilis in which the patient is threatened with deafness. More especially is this the case if the deafness comes on in the secondary stage; for it then often runs a rapid course, and if once it has become complete, I believe that recovery is very rare. Whenever a patient who is the subject of secondary syphilis consults us on account of any

affection of the organ of hearing, it is well to insist on his keeping his bed or room, and using mercury in such a manner as to rapidly bring about its full effect.

Probably this form of otitis is a close analogue of common syphilitic iritis. It appears to occur under very similar conditions; that is, in association with other secondary phenomena. It is certainly remarkable that it should be attended with so few subjective symptoms, and especially that noises, singing, and sense of stuffing in the ears should ever be so absolutely absent as they are in some instances.

In the tertiary stage of syphilis, when deafness occurs it is of far less importance. It rarely, I think, proceeds to extinction of the function, and is seldom permanent.

There is, of course, a fallacy which we must always be carefully on our guard against, in that the state of the throat in secondary syphilis may be the cause of defective hearing.

CASE I.—*Deafness in one Ear during the secondary stage of Syphilis—Diagnosis of Eustachian obstruction—Recovery.*

A young clergyman who was under my care on account of primary syphilis, having three large indurations in his prepuce, became suddenly deaf in his right ear. He had no singing in the ear, the bone-conduction on both sides was good. As there was difficulty in inflating the Eustachian tube and the membrana tympani was retracted, it seemed probable that his deafness was due to his throat. The specific treatment was continued, and a month later he wrote to me that the deafness had quite disappeared.

I have narrated the above case in order to illustrate the commonest cause of defects of hearing in syphilitic subjects. In the cases which follow, I shall take only those in which this source of fallacy was excluded.

CASE II.—*Partial deafness in both Ears in the secondary stage of Syphilis—Recovery under Mercury.*

A very threatening case of deafness in connection with secondary syphilis occurred in the person of a medical friend, whom I had treated for a chancre on his finger. Eight

months after the chancre, and at a time when he had suspended all treatment, he suddenly became deaf on both sides. The symptoms were those of nervous deafness, and he had no throat mischief. I urged him to keep his house and to push mercury. This he did, and in the course of a month had pretty much regained his hearing. At the end of the following year (November, 1880) I saw him again; he could then hear perfectly.

CASE III.—*Deafness and facial paralysis together in connection with Syphilis—Recovery from the paralysis, but permanence of the deafness.*

I saw Mr. E. W——, with Dr. B——, on August 29, 1879. It was believed that he had had primary syphilis in 1875, and for some time preceding our consultation Dr. B—— had been treating him on account of large nodes on his neck and head, one of which had suppurated. My chief interest in his case was in connection with almost absolute deafness in his right ear. This, he said, had occurred together with complete paralysis of the face on same side some years ago. I have not recorded the precise dates, but it must have been within a comparatively short time of his primary syphilis. He did not remember that he had ever suffered much from either headache or earache. Under treatment his facial paralysis had been completely removed, but he remained almost absolutely deaf in the affected ear.*

* Dr. Knapp has recorded the following facts in reference to "Deafness in Acquired Secondary Syphilis from Disease of Inner Ear" (p. 67). They illustrate what I have said as to the risk of permanence:—

Mrs. S. D——, 42, in May, 1870, began to have headache, nausea, and giddiness. Ice to head ordered.

July.—Pharyngitis and papular rash over whole body.

Dec. 23.—Suddenly she had severe headache, dizziness and nausea, but no vomiting; with intense tinnitus and rapid diminution of hearing. Was obliged to lie down; on attempting to get up she always fell, but not in any determinate direction. When lying down, the room seemed to roll from side to side, or to balance up and down, according as she lay on her side (the former) or on her back (the latter). In a week, almost absolutely deaf.

Jan. 12, 1871 (three weeks later).—Increase of headache and giddiness, with failure of sight, coloured vision, sparks, and wavering of surrounding objects;

The association of facial paralysis with deafness from syphilis was new to me when the case of Mr. P—— came under my observation. This case interested me exceedingly, for I could not but see at once how much help it gave us towards a correct understanding of the local cause of this form of deafness. It had previously been a matter of plausible conjecture that the nervous apparatus of the internal ear was the part implicated in almost all forms of syphilitic loss of hearing. Whether, however, the process was more analogous to optic neuritis, to retinitis, or to iritis, it was difficult to guess. No opportunities for post-mortem dissection had occurred to me, nor could they be expected. It seemed clear, however, when we saw the seventh nerve involved also, that the inflammation was probably one of fibrous tissues, and not primarily of nervous elements; that it was, in fact, the analogue of sclerotitis, iritis and choroiditis, rather than of retinitis or neuritis. The facial nerve could

these latter symptoms lasting only a few minutes, and recurring often during three days, but not afterwards.

Jan. 18th.—Well-marked double iritis with + tension. Syphilitic sore throat and papular rash still well pronounced. Much complaint made of noises in head. Mercury ordered. Rapid improvement in iritis, and as soon as fundus could be seen, vitreous found to be cloudy and neuro-retinitis present. No retinal hæmorrhages nor any exudation patches.

After four weeks' treatment.—Headache, rash, and sore throat almost well; giddiness less, hearing slightly improved. To have iodide of potassium and use electricity.

Two months later.—Iritis quite well, pupils movable; some neuro-retinal haze still remaining. Noises in ears continue, but are less distressing; still subject to dizziness, but can walk alone; hearing not better than last note. Health good, skin clear (April 22, 1871).

Knapp, *ibid.*, p. 72, quotes Gruber's remarks on deafness in syphilitic persons, which he translates thus:—

"I" (Gruber) "have had, up to the present time, the opportunity to examine four syphilitic soldiers, who had suddenly become deaf after having taken cold. They suffered from vertiginous attacks, from which they recovered, but remained deaf in spite of all treatment. One of these patients died from typhus fever shortly after his aural difficulty. On examination, considerable hyperæmia was discovered in the mucous membrane of the drum, and in the membranous labyrinth, which appeared much thickened. The liquid within the labyrinth was sanguinolent and abundant." Gruber asks, says Knapp, "whether this condition is perhaps to be thought an inflammation with hæmorrhagic exudation, to which syphilitic patients are predisposed? Further observations are needed." (From "*Arch. Ophth. and Otol.*" vol. ii. pt. 1, 1871.)

only become involved by pressure upon its trunk during its passage through the temporal bone. Hence the legitimate inference that the fibrous lining of its canals must be implicated in the inflammation.

The facial nerve enters the internal meatus with the auditory. At the bottom of the meatus they part company, and the facial pursues a winding direction in the Fallopian aqueduct and passing along the inner wall of the tympanum, finally arches downwards to the stylo-mastoid foramen, its aperture of exit. In one part of this course it lies between the cochlea and vestibule, and the whole of it is in such close connection with the internal and middle ear, that any inflammatory swelling might easily involve the fibrous lining of its canal, exercise injurious pressure on its trunk, and cause its paralysis. Nor is it easy to conceive of its implication in any other manner, for it is not in close association with the auditory nerve at any other part of its course.

We come, then, to the conclusion that the deafness which occurs in the secondary stage of syphilis is due to the inflammation of a sense-capsule, analogous to that which occurs in the eye, and of which iritis is the most conspicuous symptom. We know well that what we call syphilitic iritis is often an ophthalmitis implicating other structures than the iris; but it is one originating in cellular and fibrous structures, and not primarily or chiefly implicating the nervous elements of the organ. We may have a syphilitic retinitis without iritis, and in turn the latter without retinitis. The parallel probably holds good in the case of the ear, and the cases in which the trunk of the portio dura becomes compressed are those in which the fibrous structures are most severely implicated.

CASE IV.—Deafness in the secondary stage of Syphilis, with paralysis of facial nerve—Recovery from the facial paralysis, with permanent deafness—Subsequent occurrence of other nerve symptoms.

In this case the patient, Mr. P——, was a man of forty-five, in good health, for whom I had myself prescribed during the secondary stage of syphilis. He then had a copious eruption

and an acute attack of iritis in the right eye. The chancre occurred in March, and I prescribed mercury for the first time in June. He got rid of all symptoms. In September he was allowed (not by myself) to leave off mercury and took iodide only. For a fortnight he had left off all treatment, when, in the last week of the month, facial paralysis set in on the right side. I saw him on October 1st. He was then absolutely deaf in the right ear, and could not hear the watch when pressed over the ear, the forehead, or the mastoid. So insidiously had the deafness come on, that he had not himself found it out until his doctor discovered it. He had consulted Dr. P—— for the facial paralysis, and it was then found out that he was also quite deaf. The facial paralysis was not quite complete. He could just manage to shut his eye, but could not wrinkle his forehead; the side of the face remained expressionless during conversation, but on strong effort none of the muscles appeared to be absolutely paralysed. He thought that it was already beginning to improve. On inquiring particularly as to what his first symptoms had been, he replied, very definitely, "giddiness": "I reel in walking, and on one occasion I asked my brother if he had not noticed that I reeled, and he said that he had." At this time nothing drew his attention to his ear; he had no noises or uncomfortable sensations in it; and neither he nor his wife had noticed that he was losing hearing until, on consulting Dr. P——, it was ascertained that he was totally deaf in that ear. Soon after this was found out, he began to be conscious that the other ear was failing a little. On one or two occasions he had felt a little sick in connection with the giddiness, and once, on waking and turning over, he had vomited bile. At first there had been no pain in the head nor tenderness, but when I saw him, ten days after the commencement of the symptoms, he had a fixed pain in the top of his head, and there was tenderness, though without swelling, all over the mastoid region. The other ear had at this time decidedly failed, and he did not hear the watch until brought within eight inches. It is not without interest to note that the ear first affected was on the same side as the eye which had suffered first from iritis.

I saw this patient a second time two months later. During almost the whole of the interval he had been freely treated with mercury, and his gums had been for a long period kept sore. He had also taken latterly a good deal of iodide of potassium. The result had been that the right portio dura had almost wholly recovered, and that the symptoms which threatened the left ear had almost entirely disappeared. He remained, however, absolutely deaf in the right ear, and although he said that the hearing in the left was quite good, it was certainly somewhat defective. At first he could not hear the watch on his forehead, though after a while he thought that he did so, and he did not hear it in the air at any greater distance than about one foot. He could see almost perfectly with the right eye, but not so well with the left; the presence of vitreous opacities in both, and in much greater abundance in the left, probably explained this; there was no optic neuritis. A remarkable feature during the latter part of his illness had been a constant liability to severe neuralgic pains in his head. These had for several weeks almost entirely prevented his sleeping, and still did so to a large extent. He said that he rarely slept more than ten minutes at a time, unless under the influence of opium. He described the pain as "a biting pain," and said that it usually began in his forehead or eyes, and then passed to the occiput and top of the head. In connection with the pain he mentioned a symptom which I do not know that I ever heard described before, "an acutely burning sensation on the rim of the ears." He said that this was often intolerable, and that he could only relieve it by constant pressure. He had been confined to his bedroom during the whole treatment, and although he could walk and even move about quickly, he was very liable to giddiness in doing so. He usually kept his head wrapt in a shawl, for the slightest breath of air would, he said, bring on the neuralgia in his neck and head.

The prompt recovery of the portio dura whilst complete deafness remained renders it almost certain that the cause of both symptoms was, as we supposed, inflammation of the middle and internal ear.

On August 6, 1889, I saw Mr. P—— again. I made note

that he was still quite deaf in the right ear, but that his facial muscles had quite recovered. He had been at his office working hard for three months. His brain, he said, was perfectly clear. He looked well. At this date he had been taking specifics for more than a year. He said that he sometimes staggered in the street, and made people think that he was drunk; but he never had the slightest feeling of giddiness in the head. His sight was perfect in both, but he described symptoms of temporary failure of accommodation in the right eye. The movements of the eyeballs were perfect.

I find from a note on October 12, 1889, that Mr. P—— had been quite well for some months, had been attending to his business and taking no medicine. During the preceding month, however, he had been suffering from severe neuralgia in the occiput and right side of head. He said that it affected the socket of his eye; and his reason for coming to me was that he had that morning found the sight of his right eye very dim. The dimness was all but gone when he reached my house, and he could just puzzle out No. 2. From his description and from the absence of any subjective symptoms, I inferred it had been a failure of accommodation.

On April 29, 1890, Mr. P—— was again under my care, having had an attack of what he called "paralysis of the tongue." It appeared that after having been at an evening party and got a good deal excited, he had awakened in the night in a condition which had much alarmed him. His expression was, "I could neither think, speak, nor write; I could not find words." This attack occurred on January 29th, and was only transitory. He had had no hemiplegia, but "felt numb and stupid." He was in bed on account of this attack for about a fortnight, and again took specifics. The loss of ability to speak was preceded by sneezing. He had gone to bed at five in the morning feeling quite well, and woke up in the morning sneezing, and feeling as if he were drunk. He thinks that he sneezed thirty or forty times in succession. At ten he got up and went downstairs, and just managed to say to his wife "paralysis." When he came to

me in April, these symptoms had passed off. He had just returned from a five weeks' stay at Hastings, and could speak well but slowly.

On July 1, 1890, I made the following notes. He feels nervous about himself; when he goes to sleep, it is with a feeling that he will die. Memory bad; he interpolates in speech, and in writing leaves out letters. He says what he does not mean. "My speech does not give the right interpretation of my thoughts." He clips his words. In posting his books he puts shillings for pounds, and pounds for shillings. He has had much anxiety in business. No headache. Pupils small, but act well. Sees $\frac{2}{3}\%$, but thinks his sight not acute. Reads No. 1, but cannot bring the book close. Accommodation evidently defective. "I go to bed with prayer, and wake with thanksgiving; it is an awful feeling of uncertainty." He can whistle, but with a little puffing of right cheek. Still absolutely deaf in the one ear. The otoscope did not reveal any changes in the membrana tympani.

I saw Mr. P—— again on Dec. 7, 1891, when he came to me on account of a symmetrical eruption of dusky erythematous blotches on his abdomen. He was in good health, but still quite deaf in the affected ear. He had for the most part got rid of the nervous symptoms described in the last note. I believe that he is now in good health.

CASE V.—A second infection of Syphilis—Suppression treatment—An attack of fixed pain in region of ear in the eighth month—Complete paralysis of the facial nerve without deafness—Recovery.

Mr. R——, aged 39, had been under my treatment for primary syphilis from January to August, when he was seized with very severe pain in the left side of his head. We called the pain "neuralgia," but it was of such severity and persistence that he alleged that for a week he scarcely slept. It was felt chiefly behind the left ear, but he described it as having begun in the ear. It was not attended by any degree of deafness. I administered quinine with mercury. The

neuralgia began at a time when, on account of ptyalism, he had done without mercury for a month. After the pain had persisted almost without intermission for a fortnight, his portio dura suddenly failed. At the same time the pain almost ceased. The facial paralysis was almost absolute. He could not move the cheek nor shut the eye. Still there was no deafness. Mercurial treatment was pushed to sharp ptyalism, and the paralysis in the course of a month had almost wholly disappeared. A month later he was threatened with a return of the neuralgia, but it passed off.

It must be mentioned that in this case the patient had been treated for syphilis by very competent surgeons nineteen years before the attack for which he consulted me. On the latter occasion he had no fewer than five well-indurated chancres, and they resisted mercurial treatment for a long time. He did not bear mercury well.

The cause of the facial paralysis and severe earache in this instance was probably syphilitic inflammation of fibrous structures in the middle ear. The internal ear escaped, and hence the absence of deafness. It was an example of syphilitic Bell's paralysis.

CASES ILLUSTRATING DIAGNOSIS IN ORGANIC DISEASES OF THE KIDNEY.

THE cases which follow are, I think, all of some clinical value as illustrative of the symptoms which guide diagnosis in organic affections of the kidney. They also teach some practical lessons as regards treatment and prognosis.

CASE I.—*Stricture of Urethra—Painless Renal Tumour with pus and blood in urine—Fair health for a year—Increase of symptoms—Exploratory operation—Sudden death from Internal Strangulation of Bowel.*

The subject of this case was a gentleman of sixty years of age, who had enjoyed good health, but had long suffered from stricture of the urethra. The latter had, however, been well overcome when, about two years before his death, he consulted his family adviser on account of blood in his urine. In the course of an examination which followed, a tumour in the left side of the abdomen was discovered. The tumour had been absolutely painless, and was found quite unexpectedly. There was at this time pus in the urine, but the bleeding had quite ceased.

Not long after the discovery of the tumour I was asked to see the patient. I found a rounded swelling about as large as two fists in the left lumbar region, which projected forwards and lifted the colon on its front. The bowel could be easily felt and pushed from side to side on the rounded surface of the tumour. My diagnosis was that the tumour was probably a new growth.

I did not see anything of the patient for another year. During that long period he had resumed his duties as a librarian, and had suffered but little inconvenience from his

tumour. I had heard of him from time to time that he was doing well. At length, owing to an attack of pain, I was again asked to see him. I found him considerably thinner than he was a year before, and with a very considerable increase in the tumour. He had also for a week or two had much pain, and been confined to his bed. The tumour was now as large as a child's head, very tense, and presenting a doubtful sense of fluctuation. The urine was, and had for long been, free from both blood and pus. Thinking it very probable that the pelvis of the kidney was distended, I advised an exploration from the loin. This was done, and I opened a cyst which contained half a pint or more of a thin whey-like fluid. The removal of this did not much diminish the bulk of the tumour, and by further examination I became convinced that it consisted in the main of a soft solid, and that its removal was impracticable. A large tube was accordingly placed in the cyst which I had opened, and the operation was abandoned.

Everything went on well for nearly three weeks. The pain was relieved and the health improved, and although, of course, the tumour remained, we had some hope of getting our patient up again. Most unexpectedly one morning I heard that he was dead. No time was lost in seeking permission for an autopsy, and, this having been obtained, I made it in the afternoon of the following day. Before stating its revelations I may say that I was told that Mr. C—— had been quite well until the evening before his death. He was then, after taking some tea, suddenly seized with pain in the abdomen, and was sick. In an hour or two he passed into collapse, and his surgeon, who had been sent for, thought him dying. He rallied, however, and for a time seemed better. The sickness ceased, but the pain continued. In the morning he passed into collapse again and died. The whole duration of the symptoms had been only about twelve hours. As I had been aware in the exploration that I had passed instruments through the soft growth close up to the peritoneal investment, I naturally supposed that a cyst had given way into the abdomen. This, however, did not prove to have been the case.

On laying open the abdomen, which was done by turning the parieties down so as to fully expose the intestines *in situ*,

we were surprised to see several coils of small intestine of a very deep colour and tensely distended, whilst the rest of the bowels were quite pale and comparatively empty. Tracing the distended bowel backwards, I found directly that it passed towards the right iliac fossa, and that it there dipped through an aperture in the mesentery. The opening in the latter would have admitted three fingers, and upwards of three feet or more of bowel had gone through it. With a little trouble I drew the involved portion back, and we then had a clear view of the aperture. It had the appearance of having existed for some time, its edges being fairly well rounded, though not thickened. It was placed in a dense sheet of adhesions (or abnormally placed mesentery) by which the last part of the ileum was fixed to the brim of the pelvis. Probably this structure was a congenital peculiarity, for there were no adhesions elsewhere.

Several very remarkable features must be noticed in this case. First, the extremely rapid progress of the symptoms, the patient dying within twelve hours of their onset. No time was afforded for a consultation as to the propriety of an exploration; nor, if a consultation could have taken place, is it likely that a correct diagnosis would have been formed. Nothing would have seemed less probable than that a man who had been a month on his back in bed should suddenly have produced an internal strangulation of this kind. We may conjecture that the aperture had been there for years, or was perhaps congenital. What was the influence that induced the bowel under circumstances of such absolute quiet to pass through it, it is difficult to conjecture. The strangulation was not tight, and did not threaten the integrity of the gut. It was simply obstructive, and the collapse was no doubt due to the large portion of bowel involved. When first exposed, it looked as if half the contents of the abdomen were involved. The drawing back of the bowel was done with the greatest ease.

The autopsy allowed us an opportunity for examining the renal tumour. It consisted of a soft, sarcomatous growth which had everywhere replaced the kidney structure. There had also been much extravasation of blood into the tumour

substance. The removal of the kidney would have been quite impossible during life, and was only accomplished with the greatest difficulty after death. The adhesions on all sides were very strong and thick. Attention may be asked to the remarkably quiet and slow growth of the tumour, and to the fact that the patient had appeared to recover and had very fair health for a year.

CASE II.—*Malignant Cystic Tumour in connection with left kidney—Death after a year's illness.*

In June, 1884, I saw with Dr. King Kerr, of Leytonstone, a gentleman of about thirty years of age, who had been in bed upwards of six weeks in consequence of pain and swelling in the right hypochondrium. He had lost much flesh and looked ill. The tumour bulged so as to be visible to the eye, filling the space between the ribs and the crest of the ileum, but especially the upper part of it. It fluctuated distinctly; indeed, it had already been tapped and a large quantity of fluid drawn off. On the front and inner side of the tumour was a small movable mass, which I took to be the spleen. The tumour was fixed to the ribs, but less fixed below. It was not very tender, if gently manipulated. The patient had experienced a good deal of relief from the tapping. Dr. Kerr showed me a sketch of some cells which he had found in the fluid, most of which were round, twice or three times the size of blood cells, and containing distinct nucleoli and nuclei. Some were oat-shaped. The fluid drawn off was of a reddish-brown colour; no hæmorrhage whatever attended the tapping. Dr. Kerr told me that there was nothing abnormal in the urine, and that it never contained blood. We aspirated again on the occasion of my visit, and drew off from twelve to fifteen ounces of a brown fluid exactly like that obtained before. It did not coagulate. On examination of it at home, I found in it numerous cells exactly like those of which Dr. Kerr had shown me the drawings. I felt little doubt that the case was a malignant tumour springing from the kidney, with probably complete blocking up of the ureter.

A few days after my visit, Dr. Kerr wrote to me that he had

found in the urine some cells exactly like those obtained by the aspirator. He had on this third tapping removed two champagne bottles full of fluid.

The history in this case extended over a period of nearly a year, during which the patient had suffered with pain in the back, supposed to be due to disease of the spine. He had only been under Dr. Kerr's observation for a few weeks, having been previously under that of a homœopath.

The consultation to which the above notes refer took place on June 4, 1884. Our patient died from exhaustion about two months later. I had not seen him again, but Dr. Kerr informed me that he had been obliged subsequently to puncture the mass in several places in order to reduce the bulk of the tumour, since it appeared to consist of several distinct cysts. There was no post mortem.

It will be noticed that this case occurred nearly ten years ago, when there was less experience as regards extirpation of the kidney than we now possess.

CASE III.—Tumour of Kidney recognised during life—Death two years later—Autopsy—Cystic Kidney on both sides.

Mr. T. G——, aged 46, was brought to me by Dr. Lyle, of Dunmow. The history was that one night, after making water, he experienced a very sharp pain in his left loin. It kept him awake the rest of the night. Three weeks after this attack of pain he had hæmaturia, which continued more or less for four days, but was wholly unattended by pain. The bleeding led to Dr. Lyle being consulted, and to an examination of the abdomen, when a very distinct rounded swelling was discovered in the left loin. It was on account of this that he was brought to me. I saw him on the first of January, 1888. On examination I found a hard, rounded mass in the left side of the abdomen, easily felt by the hand, in front, and filling the space between the ribs and iliac crest. It became more evident when the man turned on his right side so as to allow the intestines to fall away. By one hand placed over the loin and the other over the front of the tumour it could be easily passed backwards and forwards. On its front surface

could sometimes be felt a rounded finger-like body, which passed vertically down it and which I took to be the empty colon. Thus the diagnosis that the tumour was the kidney, or a tumour connected with it, seemed clear. It was absolutely painless, and the man went about his occupation just as usual, averring that he had no discomfort of any kind. His urine was now free from blood. He had never passed a stone, but had once experienced a cutting pain in micturating. We agreed that it was a case to watch and in which for the present all operative measures were better avoided. As the result proved, this was a wise decision. The kidney tumour remained much of the same size and occasioned no inconvenience. The patient lived on in the enjoyment of fair health for between two and three years. At the end of this time he had a large carbuncle, and although the latter had nearly healed, he passed into a condition of great debility and died. He was perfectly conscious to the last, and had none of the ordinary symptoms of uræmic poisoning. Dr. Lyle procured a post-mortem examination, and was good enough to inform me that he found the kidney in a condition of advanced cystic disease. Its fellow organ was in a similar state, and almost as much enlarged. They contained, Dr. Lyle states, hundreds of cysts, by which the normal kidney structure was wholly replaced. No calculus or other cause of obstruction of the ureters was found.

It will be seen that an interval of more than two years elapsed between the date of our examination and the man's death. It was no doubt during this period that the enlargement of the right kidney occurred. We had made a careful examination of the abdomen, and could not well have overlooked it had there been any enlargement at the time of our consultation.

We have but little knowledge as to the causes of the cystic kidney, the rate of its progress, or the symptoms which attend it. It is a condition which is usually discovered unexpectedly on the post-mortem table. The case now recorded becomes, therefore, of some interest as giving support to the belief that the condition may commence in one kidney and after a time invade the other, and that its progress may

be tolerably rapid. The attack of pain and the hæmaturia remain, of course, unexplained, and it is perhaps not improbable that they were due, as was supposed at the time, to the presence of some calculous matter.

Cases such as the above offer a warning against hasty operations for tumours of the kidney. It is quite possible that an organ might be extirpated which did not in itself involve other than negative risk to life, and the functional activity of which was not wholly ended.

That a man should continue in apparently good health with very advanced cystic disorganisation of both kidneys is a fact which need not appear incredible, since not a few similar cases are on record. I well remember such a case, a man who was admitted into the London Hospital (March, 1870) with a compound fracture of his leg. The injury had been caused on board ship, and he had worked as an ordinary seaman up to the day of its occurrence. Neither before the accident nor whilst in the hospital had he ever mentioned any renal symptoms.

The following are some notes of the case taken at the time.

CASE IV.—Compound Fracture of the Leg—Death in the sixth week—Cystic Disease of the Kidneys in very advanced stage.

Alexander King, æt. 41, an able seaman, was admitted into the London Hospital, March 16, 1870. Five weeks previously he had been injured severely by a wave breaking over him while steering his vessel. He sustained a compound fracture of the left leg. Splints were applied by the captain of the vessel, and a pad placed over the wound. Owing to severe weather they were detained at sea, on short provisions, till the time of his admission. The wound was only dressed once. On admission it was found that the bones had not united, the wound was not of large size, and the leg could be placed in a fairly straight position. The tibia, however, was bare and white for some two inches above and below the wound. It was a question as to whether amputation should not be performed at once; but it was determined to wait a little while and see whether he would improve in strength. His temperature was 99·0°, and his pulse 120 and feeble. His tongue was clean, but tremulous, and though he spoke with energy he did not seem in a favourable condition for any operation to be performed. In the evening his temperature was 102·7°, his pulse 148, and his respirations 18. He had had no rigor. During the next few days there was some improvement in the condition

of the wound. The soft parts were becoming adherent to the bone, and the wound contracting. It seemed as if it were quite possible for the bone to exfoliate. His temperature, however, remained high. On the 17th it was $100\cdot4^{\circ}$. On the 18th, morning, $99\cdot7^{\circ}$, evening, $101\cdot8^{\circ}$. 19th, evening, $103\cdot6^{\circ}$. 20th, evening, $102\cdot4^{\circ}$. 21st, morning, $99\cdot0^{\circ}$. 23rd, evening, $101\cdot3^{\circ}$. 27th, 101° . At this date he became delirious; every now and then he would begin to talk very incoherently and loudly about his voyage, his accident, &c. He did not actually attempt to get out of bed, but threatened to do so. His skin was sweating, and his tongue tremulous, but clean. He knew those of us whom he had seen take notice of him, and called us by name. On the 28th, in the evening, while much the same, chloral was given him, with the effect of quieting him at once, but only for a time. The doses were repeated, and his temperature sank from $100\cdot4^{\circ}$ to $98\cdot4^{\circ}$. As he seemed weaker on the 29th, however, though quiet, it was considered advisable not to continue the chloral. The delirium became of a muttering kind, his temperature rose from $98\cdot4^{\circ}$ while under the influence of the chloral to 101° , then 104° . Then $104\cdot2^{\circ}$ during the 29th, 30th, and 31st. On the 1st April he was worse, and subsequently he gradually passed into a comatose condition, and so died.

At the post-mortem examination, conducted by Dr. Hughlings Jackson (then Pathologist to the hospital), no changes of note were found in any of the viscera except in the kidneys. These were in a condition of the most advanced cystic degeneration.* The two kidneys looked exactly alike; the weight of one only was tested, it was two pounds all but an ounce. The ureters were of normal size, but contained a purulent-looking fluid. The bladder was quite healthy, and contained a quantity of moderately clear urine floating over a thicker purulent portion. On testing, a large quantity of albumen was found. The fluid in the cysts was also highly albuminous. The urethra was free from obstruction. The liver and spleen contained no cysts.

CASE V.—*Periods of Comatose Sleep in a Servant-girl—Supposed Hysteria—Death in Coma—Extreme disorganisation of both Kidneys.*

A very instructive case in proof that the ordinary symptoms of kidney disease may be wholly absent in states of very advanced disorganisation came under my observation at an early period of my professional career. In 1850, when I was House Surgeon to the York County Hospital, a maid-servant was admitted for symptoms which were supposed, by a very sagacious physician, to be merely hysterical. She had kept

* An excellent wax model of the kidney is preserved in the museum of the London Hospital.

her place and done her ordinary work up to the time of her admission. Her most remarkable symptom was the liability to pass into a state of coma, and to remain for several hours in a condition from which she could not be roused, and then suddenly to wake up and walk about the ward. These attacks were supposed to be feigned. At length, in one of them she died. At the post-mortem the kidneys were found extremely atrophied; all trace of cortical structure had disappeared, and one of them weighed only a few drachms. They consisted of hard white fibrous structure, and neither was as large as a walnut. This patient had never had any form of dropsy, and had been considered to enjoy fair health until about ten days before her death.

CASE VI.—Hydronephrosis on the right side in a Boy—Partial removal by Lumbar operation—Recovery with a Fistula.

About six years ago Dr. Dean, then of the Gray's Inn Road, brought to me a boy of fourteen who had a large tumour in his abdomen, apparently developed from his right kidney. Dr. Dean had already very carefully diagnosed the case, and had repeatedly tapped the tumour. It had become necessary to aspirate twice a week on account of the rapidity with which re-distension occurred, and the boy, although still able to go about, was losing flesh and strength. The tumour filled the right lumbar region and the right half of the abdomen quite up to the middle line in front and passed below the anterior iliac spine. There had never been anything amiss with the urine, the boy had never passed gravel, and no precise date could be given for the commencement of the renal disease. The fluid which Dr. Dean had drawn off was thin and opalescent, and had no definitely urinous odour. After each tapping, the tumour for a day or two disappeared. It was on account of the increasingly frequent necessity for tapping, and the seeming desirability of some more radical operation, that Dr. Dean brought the patient to me. I at once agreed with him that it was clearly desirable to expose the kidney, and, if found practicable, to remove it. The exploration was made a week or two later, at the boy's home, by a free incision in

the lumbar region. The kidney was laid bare and opened. About a couple of pints of fluid having been removed, I then found that the cavity had thin leathery walls which it was very difficult to detach. On the most careful exploration of the interior of the cavity I could detect no calculus. Having detached the dilated kidney posteriorly, I cut away as much of it as I dared, the portions removed being of about the consistence of stout shoe leather. I made a long and patient attempt to peel it away anteriorly, but fearing to cut into the peritoneum, I did not venture to use either knife or scissors, and I quite failed to detach the anterior two-thirds of the cyst wall. Having removed as much as I thought it safe to take, we inserted a large drainage tube and closed the angles of the wound.

After the operation the boy, under Dr. Dean's assiduous care, progressed better than we could have expected. He was ill for a time, but never alarmingly so. What remained of the renal cyst continued to secrete for some months very continuously, and it was of course carefully syringed out. At length it contracted to a fistula, and at this stage the boy wore a canula and plug, and his mother was accustomed to wash out by the canula every morning. On one occasion, about a year after the operation, we had an alarm that the canula had slipped into the wound: it had at any rate been lost. This gave us an opportunity for re-examining the cyst. I enlarged the fistula and passed my finger freely in, with the result of finding that the cyst was very much contracted, but with an entirely negative result as regards finding the missing tube. There was a funnel-shaped cavity in the direction of what I supposed was the ureter, and into this I passed a probe, but could discover no foreign body. We continued the same treatment as before, and as no symptoms of irritation were ever developed, we assumed, in the end, that the tube had been lost externally and had never got into the cyst. It was a small one, made of vulcanite.

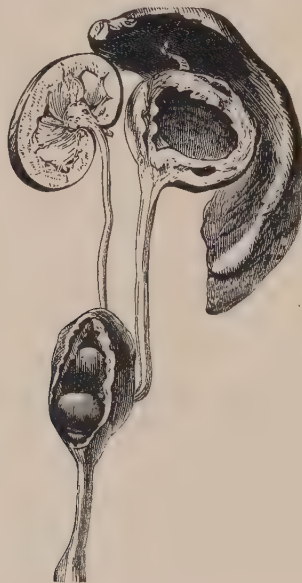
The state of the boy (October, 1888), two and a half years after the operation, was as follows: He was well grown and in strong health. He was now sixteen years of age, and in regular employment in an office. There still remained a

sinus in his loin, in which a small plug was worn. There was no evidence of any tumour in the abdomen, but a thickened mass the size of a small apple could be indistinctly felt in the loin. The quantity of discharge was not more than a few teaspoonfuls a day. He had to wear a small pad, but it did not materially interfere with his comfort.

Six years have now elapsed since I last saw this lad. He has returned home to Scotland and is, I am assured, in very good health.

The pathology of this case remains somewhat obscure, but it is highly probable that the cystic dilatation of the kidney was due to mechanical obstruction of the ureter; and by far the most probable cause of such obstruction is a calculus. It is possible that the calculus has become permanently encysted in the track of the ureter, and has occluded it; although in making this suggestion I am not sure that I could support it by the production of a parallel pathological preparation. There are many, however, which show long continued impaction of calculi, though without absolute occlusion. It is scarcely possible to imagine that anything short of almost absolute occlusion could have produced such extreme distension of kidney. On the theory of mechanical occlusion by a calculus, which had probably remained for some time in the pelvis of the kidney, it is somewhat difficult to explain the entire absence of pus and blood from the urine. I must just add that in the portions of the cyst wall which we removed, little or nothing could be discovered which represented kidney structure. The interior of the cavity was, however, partially divided by projecting ridges. The appended woodcut is from a preparation in the museum of the Veterinary College, which shows the kidneys and bladder of a dog which died from calculus. Calculi were found in his bladder. It will be seen that one kidney, the one in which no doubt the calculi originated, is completely destroyed and converted into a cyst, while the other remains perfectly healthy. This is a condition which I conjecture existed in my patient. What is known as surgical kidney very commonly affects both kidneys. We must remember, however, that the ordinary causes of surgical kidney are such

as to affect both organs, being present either in the urethra or the bladder itself. In such positions, of course it would throw back the secretion equally on both organs. If, how-



ever, a ureter were obstructed, we may easily get dilation of one kidney only, and this is my hypothesis in the present case, since it is obvious that the remaining organ is sound.

A CASE OF PARAPLEGIA.

THE following notes concern an important case which was in its commencement diagnosed and treated as hysteria. In the course of a year or two from the beginning, it became tolerably evident that there was organic disease. Even, however, after the patient was confined to her bed and appeared to be paralysed and helpless, some doubts were entertained, for she was a young lady at the hysterical age, and she preserved a perfectly healthy appearance, suffered no pain, and seemed quite contented with her position as an invalid. I cannot say that I ever had myself any doubt as to the organic nature of her malady, and this opinion was fully shared by Dr. Hughlings Jackson, who was good enough, at my request, to examine the patient within a week or two of my having first seen her. The patient lived on for several years after this, quite paralysed as regards her lower extremities, and with a degree of implication of the upper ones also, which varied a little at different times. Finally, after about an eight years' illness, death took place. The case is tolerably complete, with the exception that there was no autopsy. Little doubt can, however, be felt that it was a case in which some slow process of disorganisation had taken place in the spinal cord itself.

It may be convenient to commence the narrative by the notes which were taken at the time Dr. Jackson saw the patient with me. I prefix, however, as likely to save the reader's trouble, a Scheme of the case arranged on the "space-for-time" method.

AGE.	DATE.	DETAILS.
16	1876	Suffered at times in the summer from severe aching pain between the shoulders and in one shoulder. At Christmas had a spinal illness, "inflammation of spine."
17	1877	Was again in fair health. July went to Ireland. She was able to walk, but not to run. Afraid of falling. One leg used to drag. Whilst in Ireland her limbs failed, and she came home partially paralysed. Hysteria was now the diagnosis.
18	1878	Seen on February 17th by Dr. Jackson and self. Unable to use any limbs excepting left arm, and that only a little. Reflex spasms easily excited. No spinal tenderness. All muscles flabby and wasted, deltoids especially. Constipation and retention of urine. Sphincters weak. Sensation nowhere wholly lost.
19	1879	March. After a year's total rest in bed no great improvement. Left arm better, and sphincters better. In good general health. Reflex spasms frequent, and often very painful.
20	1880	November 13th. The left hand and arm so much better that she can write with it. Second consultation with Dr. Jackson. Health excellent. Sphincters better. Spasms of limbs less frequent and less painful. She keeps her bed absolutely. Cannot use her lower extremities.
21	1881	Much the same, but able to be out daily in an invalid chair and to go to church. Fingers of right hand closed in the palm. Able to use left hand for many things.
22	1882	The same symptoms. Quite free from pain. Cheerful and happy. A great reader.
23	1883	At her own strong wish was taken to a warm seaside resort in November. Whilst there she failed in strength, and it became necessary to bring her home.
24	1884	In the beginning of March she experienced fatigue after a drive. Subsequently there was much brain excitement and rapid failure of strength. She died March 13th. There was no autopsy.

NOTES TAKEN IN FEBRUARY, 1878.

Dr. Hughlings Jackson met me in consultation on February 17, 1878. We found that all the muscles responded to faradization equally and definitely, though somewhat feebly. Even the deltoids, which were those most visibly wasted, could be felt to contract somewhat. The comparative stiffness of the left shoulder appeared to be due to rigidity of the great pectoral muscle. This muscle was slightly rigid on the left side, but much more so on the right. It is to be observed that the left upper extremity was less involved in the paraplegia than the other.

I examined her spine very carefully with a view to determine whether or not there was any disease of the bones. No thickening nor any irregularity could be detected, nor was there the slightest tenderness. A blow on the top of the head, jarring the spine, gave her no pain.

Inability to relax the muscles seemed to be a very characteristic feature. It was shown not only in her inability to allow the urine to escape even when the bladder was uncomfortably full, but in the fixation of her limbs whenever they had been placed in certain positions. If her feet were touched, a condition of reflex spasm was produced, and one foot was pointed over the other, or the toes pointed downwards, and in this position the limb remained, resisting considerable force to straighten it. It was exceedingly difficult in handling a limb thus involved in slight muscular spasm to get rid of the impression that the patient was wilfully resisting. There was also another peculiarity, that the joints had lost the normal smoothness of action, and moved like those of a wooden doll, in which, after overcoming some hitch, the bones would suddenly slip, and then become hitched or locked again. I noticed this tendency of the limbs to pass into a condition of slight rigidity, especially in the upper extremities. The arm, when put quite straight at the elbow, became slightly stiff, and I could not bend the elbow by lifting the hand, but had to take hold of the upper arm, when it gave way quite suddenly, just like a wooden limb with a hinge.

Miss W—— could do nothing to help herself in sitting up. When held in the sitting posture in bed her head bent forwards, but she could raise it, and had good use of all the muscles of her head and neck, including the trapezius. It gave her no pain to bend the neck into any position. There was a clear history that in the early stages of her complaint she had had a good deal of pain between her shoulders and in the lower part of the neck. This pain had been increased by exercise, and had sometimes disturbed her rest. She had, however, never required treatment for it. For the last six months this pain has been almost wholly absent. I forgot to examine as to the state of thoracic respiration.

There had never been any tendency to bed-sore. This is to be explained, in part at least, by the fact that, although the power of motion is lost, that of sensation is not so, and she is thus enabled to avail herself of the help of her nurses whenever pressure causes pain. Her custom at home has been to spend the greater part of the day on the couch, but to be taken out of doors frequently in a bath chair and in a reclining position.

Great difficulty has been encountered in keeping the bowels open, and frequent changes have had to be made in the aperients used. A sort of constipation of the bladder has also been very troublesome. She has but very rarely had incontinence of urine, but it is a common thing for the urine to be retained for twenty-four hours, and at the end of that time for her to experience great discomfort and be for half an hour or more unable to empty it. During this time her nurses are accustomed to rub and press the bladder, and often painful contractions of the lower limbs

are induced. At length the sphincters will yield, and a full flow of urine occur. These attacks are only occasional. As a rule the bladder will empty itself when moderately distended. The catheter had never been used.

Dr. Jackson and I agreed in an unqualified opinion that the case was not one of hysteria, being much helped to this opinion by the state of general muscular emaciation which existed. Miss W—— was a florid, blooming girl, quite free from expression of suffering, and she had not lost her subcutaneous fat. Her muscles, however, were everywhere in very poor condition, and notably her deltoids had so much disappeared that they could scarcely be felt. We had also the facts that the upper extremities as well as the lower were involved, and not quite symmetrically, that sensation was not asserted to be wholly lost, and that she did not complain of the slightest spinal tenderness—that is, there was no feigned hyperæsthesia. The condition of the limbs as regards reflex contractions and rigidity, and the history of the bladder retention, were also, as it seemed to us, quite genuine, and as if in connection with organic disease.

We were told afterwards that, prior to her complete failure, and whilst able to walk about, Miss W—— had been brought to London, and had seen an eminent surgeon. At this time she had merely weakness of the limbs and dragging of one foot, and the opinion given was that it was hysteria, and change of scene, &c., had been urged.

Dr. Jackson advised that she should not be allowed to go out or to be put on the couch, but kept constantly in bed, and to take iodide of potassium and have the spine cauterised. I was myself much inclined to suspect that some cause of pressure upon the cord existed in the lowest part of the cervical region. The symptoms were exactly like what I have several times seen in cases of angular curvature, and we had here the history of pain in this one part as the first and for some time the only symptom. Opposed to this opinion was the fact that no tenderness, or thickening, or distortion could be detected.

If we reject the theory of pressure from without, and also the hypothesis of hysteria, we have to suppose some structural disease of the cord itself, located probably in the cervical region. We both agreed in thinking recovery not improbable, and that without any very special treatment. Of the pathological anatomy of any form of recoverable organic disease of the spinal cord we have, I suspect, but little definite knowledge.

The above notes were, as above stated, written out after a consultation on February 17, 1878.

In June of the same year I had a letter from her father, which reported a slight gain in power in the left upper extremity. She suffered increasingly from involuntary contractions

of the lower extremities. She had had one knee swollen (without pain). The mercurial which we had prescribed had been discontinued because ptyalism had been produced. After a night disturbed by spasm her back would ache, but not otherwise.

The following letter from her medical attendant gives particulars as to her state on April 6, 1879:—

“ I very carefully examined her, which I had not done for a long time, her condition being much the same. I found the pupils alike, and dilated well when shaded. I think the sphincter ani acts, for her mother introduced her finger, and found it contracted, and it appears there has been no difficulty in retaining the fæces—at least there has been no involuntary escape. There is no incontinence of urine. At times she does not micturate for many hours—as long as eighteen hours—but still not attended with difficulty, nor has she ever required the use of the catheter. I percussed her spinal column, and caused a good deal of pressure in the cervical vertebræ; it gave her no pain or discomfort. There is undoubted wasting of the right deltoid, the right arm being rigid. On attracting her attention from herself, I had no difficulty in bending the elbow, wrist, and shoulder joints; when asking her questions as to the arm I could not do so. She is able to raise her head off the pillow, also the right arm to her head, but cannot grip the hand. Her general health is good, and I don't, as far as appearance goes, know a healthier-looking face in this parish. She is very placid, and evidently enjoys, from her own account, her unfortunate existence. As to the nature of the case, I am at a loss to understand it. She came under my care two years ago last Christmas. She was then walking lame. On examining her spine, there was slight pain and tenderness in the lower cervical region. I considered there was some mischief within, kept her in bed for a month, applied locally counter irritation, gave her the iodide, thinking, should there be any effusion causing pressure on the cord, it would remove it. At the end of this month, pain and tenderness had ceased.”

In November, 1880 (nearly three years after my first consultation), I again saw Miss W——. She had improved considerably in ability to use her left hand and arm, and could just manage to write. The right upper extremity remained useless, with the exception that she could lift it a little from her side. Sensation had improved in the legs and feet. She could generally tell where she was touched on any part of foot or leg. The tendency to draw up the legs was much less than formerly, but still occurred some-

what. The legs still had a tendency to cross each other and to be held stiffly. There was often difficulty in parting the knees. The following notes had been supplied by her father, and narrate the symptoms which had been observed at her home :—

“*November, 1880.* She has improved considerably in ability to use her *left* hand and arm. She can now hold a pen feebly, but with sufficient firmness to enable her to write, with painstaking, and even to accomplish little pen-and-ink etchings. She can now also feed herself (her food being cut up for her). The *right* hand and arm remain useless, but power of movement seems returning, as she is now able to move the arm from the shoulder, about a foot from her side (not more); but the fingers of the right hand are still powerless, and the arm stiff at the elbow joint, and somewhat distorted. The legs are still entirely (?) beyond her control, but the spasmodic movements which used to be so distressing are neither so violent nor so frequent, nor does she suffer as much pain in them as she used. It should be noticed, however, that the legs, although not so painful, are perhaps as stiff, and show a strong tendency to *cross*. Pain in the back is seldom felt now; if felt, it is generally traceable to some temporary cause. The *neck* is much stronger, and pain rarely felt in it. There is much more control over the natural functions, although this control is by no means re-established. Her flesh keeps up well, and the limbs are all stouter than they were at the last report. Spirits equable and bright, brain active. Menstruation very regular. Any advance made or power regained has been in the *hot* weather, but she does not lose in the winter anything gained in summer, though progress seems then at a standstill. Still, in cold weather the hand (left one) does not seem so capable (temporarily) as during warm weather. Her nights are much less disturbed. Generally she has to call her nurse two or three times in the course of the night. This is when she gets into uncomfortable positions through the involuntary springing of her legs or curving of her body, she being powerless to move herself back into a comfortable position. Her sleep is good, her appetite also good.”

It will be seen that at this time there were no indications that the disease was aggressive. Nor did it seem to threaten life. The patient in her paralysed condition had yet borne a long journey to town without unusual fatigue. She still bore the appearance of good health. There did not appear to be any reason why her life should not be indefinitely protracted.

I did not see Miss W—— again, nor did I receive from her friends any detailed reports. Her case was regarded as

hopeless, and no further measures of treatment were resorted to. In 1884 I heard that she had died, and the following particulars of her subsequent progress and of her last illness were supplied at my request:—

During the three years 1881, 1882, and 1883 she was, on the whole, rather less disabled than formerly. Her lower extremities and her right upper one remained quite paralysed, but they were less liable to spasm and not contracted. She was frequently taken out in a bath-chair and would go to church, and even occasionally take a drive. She could use her left upper extremity to feed herself. She was fond of music and of reading, saw her friends, and enjoyed her life. In November of 1883 she was taken, at her own request, to a warm seaside place. Whilst there she flagged, but after her return home was still able to go out. Her final illness was only of ten days' duration, and was attended by cerebral excitement and tendency to coma. In this state she died quietly on March 17th.

In thinking over this case I have half regretted that no exploratory operation was done. Although most of the symptoms pointed to myelitis, yet they by no means made this diagnosis a certainty, and there remained a possibility that they might be caused by pressure. In the early stages of the case we discussed this repeatedly, and put the suggestion of operation aside as likely to be attended by more risk than probability of benefit. We had also at that time much hope of recovery. It might, however, in the later stages, have been well worth while to make an exploration.

ILLUSTRATIONS OF HEMIPLEGIA IN SYPHILIS.

I HAVE written out the notes of a great many cases in which attacks of hemiplegia occurred to patients who had suffered from syphilis. This form of hemiplegia is, I suppose, in nine cases out of ten, perhaps in a yet larger proportion, caused by arterial disease. Very rarely indeed is it induced by a gumma, and it is not commonly attended by hæmorrhage. Most cases recover, and but seldom does any relapse occur. My notes of several cases extend over many years, and prove that such patients may recover perfectly and retain good health. The opportunity of obtaining a post-mortem has but very rarely occurred to me. Although for this reason my cases are all incomplete, yet I think that some of them may prove of interest to my readers, and may afford hints as to diagnosis and treatment. In some I have been especially careful to give the details as to the preceding symptoms and mode of attack, believing that much help in diagnosis may be obtained from such records. Cerebral seizures resulting from arterial disease differ in a general way both from those caused by hæmorrhage and those due to embolism, in that they are not absolutely sudden and unexpected. Very often, indeed usually, there has occurred previously discomfort in the head and possibly some transitory numbness or tingling in the limbs affected. The artery, or arteries, affected have been undergoing gradual occlusion, which finally becomes complete. Thus the portion of brain involved has been deprived of its blood rather gradually, and there has been time allowed for the occurrence of premonitory symptoms. This circumstance has been a noteworthy feature in most of the narratives before me, though by no means in all. In some cases, especially those occurring in senile patients and after a long interval

since the original syphilis, there may be some uncertainty as to whether the cerebral lesion was really due to the specific disease. I do not think, however, that there are many in my list respecting which much doubt could be entertained. I shall do my best to make each case explain itself, and so without further preface will proceed to their narration.

The first which I will give is one of the first which attracted my attention to this form of hemiplegia. It occurred more than twenty-five years ago, and at a time when cerebral syphilis had received much less attention than it has since had. I give it as written out soon after the patient's death.

CASE I.—*Tertiary Syphilis—Cerebral attack, with defect of sight and partial Hemiplegia—Rapid recovery.*

Mrs. G——, a widow of about forty, was under my treatment in 1861 for a very large and deep ulcer in one leg, which I had no doubt was of syphilitic origin. There were circumstances which made me unwilling to make inquiries. I treated her by full doses of iodide of potassium, and the sore healed. Six months later she came to me with a deep ulcer in the tongue, again clearly tertiary, and again cured satisfactorily by the iodide.

One Sunday in December, 1868, I received a message that Mrs. G—— had had a fit, and that she was very desirous that I should see her. I found that since her leg and tongue had got well she had been in excellent health until the present attack, and had had no relapse of syphilitic symptoms. On the Saturday night she went to bed feeling quite well. She awoke in the morning with a strange feeling in the head, and, looking at the window, supposed at first that snow had fallen, as everything seemed white. Her right arm and leg felt "curious" and a little numb. When she stood up she felt as if she must fall over to the right side. When I saw her in the afternoon she could only read capitals, although on the previous evening she had read the newspaper easily. I could detect no loss of sensation, nor was her face drawn. She was up, and could stand and

walk, but the right limbs were very weak, and she was aphasic. I again prescribed the iodide.

On Wednesday she was much better, and could again read perfectly. I now used the ophthalmoscope, and found the fundus of the eye in a normal state. She still complained of the weakness of her right limbs. Her memory and all other faculties seemed perfect.

Mrs. G—— recovered perfectly from the attack above described. Two years later I was again consulted, and found her confined to bed with rapidly spreading cancer of the vagina. It had already perforated the bladder, and she died a few months later. I had no opportunity for a post-mortem.

My next case is one which I saw not long after the preceding.

CASE II.—*Hemiplegia (right) in the third year after Syphilis—
Recovery, with contractions—Good health twenty years later.*

A gentleman of about forty-three, who had suffered from syphilis some years before, became paralysed in his right limbs. The attack was preceded by several occurrences of tingling and numbness in the arm. Especially in the morning of the seizure he had repeatedly experienced inability to use the hand for some minutes at a time. The syphilis had occurred in 1871, and the attack of paralysis was in October, 1873. Within a year of the primary disease, however, he had been very ill with cerebral symptoms, and for a time comatose and not expected to recover. He was at that stage seen by Mr. Hilton, Dr. Hughlings Jackson, and Sir William Jenner, all of whom prescribed mercury. Under specific treatment, long continued, he recovered, but still remained liable to giddiness. In August, 1873, he went to Scotland in tolerably good health, but still taking bichloride. In October of the same year "the seizure" occurred. He lost the use of the right arm and leg, and became aphasic. He never wholly lost consciousness. I did not see him till four months after this attack. He had been continuously taking specifics, and we continued them.

The subject of this case is still living, twenty-one years after the seizure. The hemiplegia has been followed by contractures, and his limbs are to a considerable extent disabled. Nor has he ever recovered perfect speech. He can write well with his left hand, and can walk a mile or two at a time. He has during the twenty years enjoyed fair health, but about six years ago he had several falls from giddiness, the attacks being possibly of an epileptiform nature. No symptoms of syphilis have developed since the seizure, and we appear to have a good example of permanent cure. His brain functions have been recovered so far as the local lesion left it possible. The case is, for purposes of prognosis, a very valuable one. Next to it I may place the case of a

Partial Hemiplegia in Syphilis.

CASE III.—*Syphilis—Early but imperfect treatment—Secondary symptoms—Reminders—Node on tibia and hemicrania in fourth year—Facial and brachial hemiplegia in fifth year.*

DATE.	AGE.	DETAILS.
1889	22 (1)	A chancre. Early treatment, but it did not prevent sore throat, &c., and some eruption. Never ptyalism at any time.
1890	23 (2)	Treatment till August. Went to Australia. Had dysentery. Palmar psoriasis showed itself.
1891	24 (3)	In England in good health. Taking medicine off and on.
1892	25 (4)	No medicine. Node on tibia. Headaches began; pain over right eye. "Nearly drove me silly."
1893	26 (5)	In America. Had headache, and took iodide for six months (gr. x). A node on tibia. A seizure in December.
1894	27 (6)	Seen by me on January 12th. Still imperfect facial paralysis and inability to write. It was a fortnight since the attack.

In the above case the patient had never from the first been long free from symptoms. He described the pain of the hemicrania in the fifth year as having been exceedingly severe. The attack of incomplete hemiplegia was not preceded by any warning symptoms. It was at first thought that he had "Bell's paralysis," as his mouth was awry, but soon afterwards it was found that he could not write. The seizure might have occurred during sleep, for at breakfast his articulation was noticed to be

defective. After breakfast he went to a shop, and found unexpectedly that he could not sign a cheque. The leg was not affected in the least. He never lost the power of grasping with the right hand, but simply could not write. He had partial facial paralysis, and could not whistle. He could always frown and shut both eyes. His mouth constantly deviated to the left whilst he was talking to me. No defect of sensation had been noticed in face or limbs. He was not giddy or ill at the time of seizure.

There was no increase of symptoms after the seizure, but rather gradual improvement. It was a fortnight after the attack when he came to me, and he still had the incomplete facial paralysis, the inability to write, and a certain liability to choke in swallowing. His fifth nerve muscles were perfect. He had not the least headache, and no other symptoms of syphilis. He had been taking iodides, and I advised him to push mercury to salivation.

CASE IV.—*Syphilis—Prolonged treatment and recovery—Good health—Syphilitic Lupus and Periostitis in the tenth year—Left hemiplegia in thirtieth year—Subsequent liability to spasm and pain in the lower limb.*

DATE.	AGE.	DETAILS.
1860	23	Had syphilis; was treated with mercury and iodide.
1861	24	Long under treatment; salivated slightly.
1862	25	Well.
1863	26	Well.
1864	27	He married.
1865	28	
1866	29	Not a day's illness. Two sons born about this period are living now and quite healthy. He lost only one of his children, the youngest (from phthisis).
1867	30	
1868	31	
1869	32	
1870	33	Lost his wife, and became much depressed.
1871	34	Had syphilitic lupus on scalp, and a gumma in tongue.
1872	35	Took iodides and mercury.
1873	36	
1874	37	
1875	38	
1876	39	
1877	40	
1878	41	
1879	42	No serious illness; leading an active life. Occasionally suffering from local pains, and accustomed to resort to iodide of potassium for their relief.
1880	43	
1881	44	
1882	45	
1883	46	An attack of "arthritic iritis" in right eye.
1884	47	
1885	48	
1886	49	
1887	50	
1888	51	
1889	52	
1890	53	In September had an attack of hemiplegia (left limbs and face).
1891	54	Recovered well from the paralysis, but not completely.
1892	55	Became liable to pain and spasm in lower limbs.
1893	56	My first consultation.

His account of the seizure was that he had risen one morning in usual health and was dressing, when he found suddenly that he could not use his tongue. Soon his left arm and leg failed, and he had to be assisted back to bed. He did not lose consciousness in the least, and had no difficulty in finding his words, but could not enunciate them. The left side of his face was paralysed. Some warnings of the fit had occurred. He had been sleepless, and had felt uncomfortable in his head. On one occasion he had been unable to draw his left hand out of his trouser pocket.

A peculiar feature in the case was that about a year after the attack of hemiplegia he became liable to distressing pain in the affected lower limb. This pain was attended by contraction of the knee and foot; the latter assuming the varus position. The attacks of pain always came on during sleep, and obliged him to get up and walk about. He would often be thus compelled to rise ten or fifteen times in the night. If he went to sleep in the daytime he was sure to wake in pain.

When he consulted me his left foot was turned in and the knee constantly bent. His knee-jump was moderate on both sides, better on the left.

The liability to pain did not begin till a year after the attack of hemiplegia. He still had a lumpy condition of the middle of tongue. Many scars on the scalp. He said that anything which took his whole attention exempted him from pain, and even the contraction at his knee might pass off. Thus, whilst playing at billiards he was free from pain, and sometimes his knee would become quite straight. All the muscles of the inner hamstrings were thrown into contraction if he endeavoured to straighten the knee. The muscles were well nourished. His upper extremity was, like the leg, somewhat stiff, but it was not liable to pain.

In the case above given, it is clear that we have to choose between hæmorrhage and thrombosis as the cause of the hemiplegia. The attack was sudden, and developed rapidly. It had, however, been preceded by some temporary weakness in the left arm, and this, taken with the fact that there had been discomfort in the head, may perhaps give support to the belief that it was arterial thrombosis rather than rupture. The long interval which had elapsed since the attack of syphilis would, on the other hand, suggest such kind of arterial disease as would more probably cause rupture than plugging. It may even be doubted whether the syphilis had any direct connection with the attack. The latter may have been from senile disease of arteries of a non-specific form. The facts, however, that definite and severe tertiary symptoms had occurred eleven years after the primary disease, and some of a more or less vague character had persisted ever since in spite of general good health, were suspicious. When I saw the patient, he had no specific symptoms excepting his tongue. His motive for seeking

advice was the painful spasms in his paralysed lower limb. Did these indicate changes of an active, possibly of a specific, kind in the scar of the hæmorrhage or the part involved by the thrombosis? Possibly they were in connection with irreparable damage, but implied nothing whatever as to recent activity. It seemed best, however, to be on the safe side, and although he had no headache, to use specifics again. He reported that mercury had always agreed with him, and that the iodides always lowered him and irritated his kidneys. It was, however, from the iodides that he had always obtained most relief to his pain.

I advised him to push mercury. This was done to slight ptyalism, and with the result that an old osseous node on one tibia became more swollen and painful. It subsided again when we left off mercury and gave iodides. When I last saw him no great benefit had been obtained as regards the spasms.

(To be continued.)

NOTES ON THE DISTRIBUTION OF HAIR ON THE HUMAN BODY.

ALTHOUGH in the gradual progress of race-development the hair bulbs have atrophied over the greater part of the surface of the human body, yet man can by no means be correctly described as a naked-skinned animal. Those who have frequent occasions to make their patients strip, or in other ways have opportunities for seeing unclothed men, must often be struck by the remarkable peculiarities displayed by individuals as regards the local or general growth of hair. It may perhaps be worth while to briefly take note of these peculiarities, since it is quite possible that their study may convince us that they illustrate laws to which some degree of practical importance attaches. In order to avoid prolixity I will not attempt a continuous essay, but content myself with recording a few detached observations.

The suppression of the hair bulbs as regards the surface of the trunk and limbs is far more nearly complete in females than males. Hairy men are tolerably common, hairy women exceedingly rare.

To some extent the growth of sexual hair is the same in the two sexes. By sexual hair we may suitably mean the hair which does not make its appearance until the sexual functions are developed. Both in men and women at the period of puberty hair makes its appearance in the axillæ and on the genitals, and its luxuriance is in some relation with the vigour of the newly assumed character.

In males, however, not only does hair grow on these regions, but it appears on certain parts of the face, and in many persons in greater or less abundance over the trunk and limbs also. The hair which some persons show so plentifully on

the chest, back, and hips, &c., must be regarded as sexual hair, for it is never present before puberty, and is chiefly seen in those who are vigorous.

There is a curious proverb which asserts "There is no wife for a hairy man." Whether it means more than that such a man will not be able to find a mate in like condition, I do not know. There is probably no ground for suspicion that hairiness renders a man in any degree distasteful to the other sex.

The regions on which, in men, aberrant sexual hair is developed vary much. Perhaps the one most frequently affected is the middle of the chest, but the back, the loins, the thighs, and the backs of the arms may in turn be affected. Sometimes the back and chest are bare and the buttocks covered.

In many men the facial hair may be not confined to the chin, cheeks, and upper lips, but great tufts of strong hair may grow inside the tragus of the ear, or just within the nostril. I do not think that I ever saw hair in these positions in women.

The suppression of hair on all parts of the face in women, eyelashes and eyebrows excepted, is often remarkably complete. Unless with the approach of senility and abeyance of sex character, or in states of sexual ill-health, nothing but the most delicate down can be detected usually on a woman's face. It may be thought that hair in the entrance to the nostrils and the external ear is likely to be valuable as a protection, but most women have to get on without it, just as certainly as they have to forego the warmth of a beard in front of their throat.

The growth of the eyelashes is probably much the same in the two sexes, but that of the eyebrows is always restrained in women, whilst in some men it is free and becomes decidedly a sexual character.

In association with the completeness of the suppression of facial hair in women, we observe its profuse growth on the scalp. The male scalp cannot, as a rule, compete with that of females in respect to the abundance and length of its hair. Probably, also, the growth of hair is more rapid in

women. The capability of growth to an almost indefinite length must probably be regarded as a sexual peculiarity in women, for very few men could in any degree rival it.

It seems not improbable that there is some law of local competition which restrains the growth of hair, and it may be that the absolute suppression of hair on the face, trunk, and limbs in women conduces to luxuriant growth on the scalp.

I feel sure that it is the fact that in men the growth of hair on the face and trunk competes with that on the scalp. Hairy men are usually bald men, and so very often are bushy-bearded men.* The explanation of this may perhaps be that the hair requires for its sustenance certain elements of food that there are not supplied in unlimited quantity.

I think I got the hint from Dr. Mapother that it might be possible to feed the hairs and promote their growth by a suitable diet. We know that we can feed the fat and the muscles. Although vegetable food can of course be used to make both muscle and hair, yet it does not follow that some nearly similar articles of diet may not be, in certain states of the system, more readily available. Possibly some enterprising chemist might prepare for us a crinal extract from which to make a hair-soup.

In some cases in men the whiskers are not limited to the sides of the cheeks, but come forward over their middles and cover the flush-patches.

There is in the Leeds Pathological Museum an example of an acephalous, or rather brainless, foetus, the whole body of which is covered with downy hair. I have seen several instances in which the occurrence of severe disease in

* When I was a boy, electioneering amenities did not entirely prevent personalities. I well remember some doggerel rhymes in which the members of a local committee were described and "taken-off" by an opponent. Of one gentleman whom I knew well it was said (quite truthfully)—

"Where the soil's unproductive the hairs are thin,
But nature has doubled the growth on his chin."

A gentleman who was recently under my treatment for syphilis lamented bitterly that he was becoming bald. I had noticed that his buttocks were covered thickly with long, curly hair, but the suggestion that he could not expect to have it grow equally everywhere did not seem to console him.

infancy (chiefly, I think, cerebral) has appeared to favour the growth of hair on the body. It may be conjectured that brain disease may in some way arrest the development of parts of the system which in a reflex manner may be supposed to inhibit the development of body-hair.

Any protracted and debilitating disease, in a young person, may be attended by a general growth of weak hair over the body. This may occur in either sex.

It may perhaps be held to be the law that the more perfect the sexual health in a male, the greater the luxuriance of hair; whilst in the female the more complete is its suppression. There are, however, exceptions on both sides.

In some persons a broad band of strong sexual hair passes down the middle of chest and abdomen, and, widening as it descends, joins with that of the pubes. Those who have hair in this position rarely have it on the back also.

The pubic hair is usually the same colour as that of the beard, and both may differ from that on the scalp and abdomen. I have seen a plentiful crop of black hair on the abdomen from navel to pubes, that on the pubes and that of the beard being red.

There will, I think, be little doubt that hairy persons are usually of the dark complexion. I do not think that I ever saw a fair-haired individual with any very remarkable development of hair on the trunk or limbs. This may be a matter of race. The Semitic race, as represented in England, is, I think, far more prone to the growth of body hair than any other, and most Jews are of dark complexion.

ON CURVING OF THE PENIS.

THERE is a peculiar affection of the penis, very annoying to those who suffer from it, which consists in a tendency on the part of the organ to curve upwards during erection. The curving is not attended by any pain whatever, but it is often very considerable and may be sufficient to entirely prevent intercourse. The subjects of this malady are usually men past middle age, but still in the vigour of life. It is in my experience quite exceptional to find any special cause assigned for it. Now and then there is, as we might expect, a history of syphilis in youth ; and very often there is, as also might be expected, a history of gout in the family. It is but seldom, however, that either the one or the other of these affections appears to be definitely connected with the symptom.

On examining the penis in these cases there can generally be appreciated some unevenness in the structure of the corpora cavernosa. Either there is a spot, which is less firm than the rest, or there is a part which is decidedly indurated. These conditions are, however, often far from being conspicuous. We may, notwithstanding, I think, accept them as sufficient evidence in support of the belief that the pathological condition is sometimes an obliteration of the cavernous structure of the organ. We may conjecture that in these cases local thrombosis or inflammatory induration is the first step in the malady. It is but seldom, however, that the patients can give us any help in this direction by assigning the date of the occurrence of any such attack. I have seen from time to time a good many examples of this peculiar malady ; and the statements made above present, I think, a fair summary of what I have observed. Some of the patients have been very much distressed by the symptom, and willing to persevere

with any treatment which promised relief. Treatment usually has, however, been very unsatisfactory, and in several cases I know that the symptom persisted for several years, and that no benefit had been obtained when the patient was last seen.

A valued correspondent (who withholds his name) has suggested to me that there may be some connection between this symptom and the induration of palmar fascia of the hands known as Dupuytren's contraction. He has observed two cases in which these conditions were present together. It is a suggestion well worth attention, and I am sorry that in most of my cases I have not noted anything regarding it.

The following are some brief records of examples of this condition which I find in my note-books :—

CASE I.—*Curved Penis in an old man.*

In June, 1884, an old man of seventy-two, who had been fifty years married, consulted me on account of this symptom. It had troubled him for a year and a half, and was increasing. I saw him but once, and have no note as to any induration of the part.

CASE II.—*Curving of the Penis in a man of middle age.*

In a case in which I was consulted by Mr. I—— S——, of H——, the patient was a man who had been twice married and who in early life had had syphilis. He was fifty-three years of age. For five months he had experienced great inconvenience in intercourse owing to the penis curving upwards when erect. The curve was greater during the advent of erection than when it was complete. He attributed it to having exerted himself too much in intercourse when excited by wine. As these occasions were, however, attended by pain, it is probable that they were rather the occasions for his discovering what had really been present in some degree before. He was a nervous man, and the condition had caused him great annoyance.

In this case the patient himself had never suffered from gout, but his father had had it severely.

Three years after my first consultation Mr. S—— was good

enough, in reply to my inquiry, to inform me that in both palms a decided tendency to contraction of fascia existed. The curving of the penis was still present, but the pain had ceased. During the last two years he has been under treatment for a rheumatic affection of his eyes.

CASE III.—*Induration in the Penis in an old man of sixty-six.*

In September, 1874, I saw a hale old gentleman of sixty-six who was troubled with the condition under discussion. In the middle of the upper part of his penis was a considerable indurated mass. It caused contraction rather than enlargement. It began a little behind the glans and extended back to within a little distance of the pubes. It had been attended by no pain, but in erection it caused the penis to bend upwards and entirely prevented copulation. He was married, and much lamented his condition. I saw him only once.

CASE IV.—*Bending of the Penis—Induration and Shrinking of one Corpus Cavernosum.*

Mr. K——, aged 59, had suffered from stricture after gonorrhœa; had used instruments often. He consulted me in August, 1881, on account of induration and atrophy of the right corpus cavernosum. It caused the penis, during erection, to curve upwards and to one side. His stricture when I saw him was quite cured, but his own theory as to the condition of his penis was that he might have bruised it by nipping too forcibly when passing instruments. He was the subject of balanitis perstans. An induration of the corpus was easily felt.

When I saw Mr. K—— a second time, a year and three months after the first consultation, I found that the induration had travelled backwards. It was as hard almost as cartilage, and had well-defined boundaries.

I have not seen this patient of late years.

CASE V.—*Curving of the Penis—Former history of Syphilis.*

A gentleman of fifty-six, of gouty tendencies, who had suffered from syphilis in early life, but who had fifteen

children, was brought to me by Mr. H——, of Bishop's Stortford, on account of curving of the penis. There was indefinite induration. The curving had been increasing for more than a year, and it rendered intercourse almost impossible.

CASE VI.—*Curved Penis suddenly discovered—Induration in the middle of Dorsum.*

Mr. S——, a healthy-looking Jew, aged 47, consulted me in March, 1891. One night in the previous September he had been wakened by feeling as if he had a very severe erection, and found his penis curved upwards. I found that in the middle of the dorsum of the penis, apparently implicating both corpora cavernosa, was a disc of induration as hard as cartilage, which caused the glans to be curved upwards during erection. When first noticed it was, he said, merely "a single, little, hard knot like a pill."

At the age of seventeen, Mr. S—— had had a very severe attack of gonorrhœa, with very painful chordee, but had been free from the disease recently. I could obtain no definite history of gout; but a brother and sister, both living, were the subjects of diabetes. The patient was liable to aching across the eyes. He had seen Mr. Berkeley Hill before coming to me, who had considered it gouty.

This patient, at my request, came for examination a second time, March 5, 1894. The state of things was much as at first. He could still effect connection, but described the curving as being great. The corpora cavernosa appeared to be wasted, and there was a hard band in the middle (the septum), which he said became more conspicuous during erection. He had no trace of Dupuytren's contraction of palmar fascia.

I cannot forbear to quote this patient's version of what my late much-valued friend, Mr. Berkeley Hill, had said to him. It was as follows: "I have seen about six cases like yours, and if you have come expecting me to cure you, I must tell you candidly that I cannot, for I never saw improvement in any one of them."

CASE VII.—*Curving of the Penis in a man of middle age—
Shrinking of the Corpora Cavernosa.*

In the case of Mr. M——, aged 42, the condition was, contrary to rule, associated with some loss of sexual power and desire. I saw him in 1885 and 1886. He was a short, muscular man of good energy, but he admitted that, apart from its being almost impracticable on account of the upward curving of the penis, he had very little desire for sexual intercourse and that erections occurred but seldom. His corpora cavernosa were hard and apparently somewhat wasted, so that the glans and corpus spongiosum appeared too large, and thus more or less of curving was constantly present. The penis was small, and the scrotum tightly contracted on the testes. The inconvenience from curving in erection had been present three years when I was consulted, and of late he had been obliged almost wholly to abstain. He had formerly lived a very fast life, and had suffered from both gonorrhœa and syphilis. There were no conclusive symptoms of commencing tabes, but his knee-jump was defective and micturition-power feeble.

CASES VIII., IX. & X.—*Cases of Curved Penis in association
with Dupuytren's Contraction of Palmar Fascia.*

An observer to whom I am indebted for some particulars respecting three cases of this kind, writes me that he has, in two of them, carefully re-examined, at my suggestion, as to whether induration can be detected. In neither can anything whatever be identified when the penis is lax, but in one, when erect, the patient discovers "a small cord passing backwards two inches in length." Both of these patients are the subjects of Dupuytren's contraction of palmar fascia.

The following is an extract from a former letter from my friend on the subject:—

"Within the last twelve months I have met three cases, with regard to which I can find no reference in any book in my possession (and no medical brother I have spoken to has seen a case), and I hope you will forgive me asking you to help me in the matter.

"All these are married men over middle age, and fathers of families.

There is no history of syphilis, but two are rheumatic and one probably gouty. Two have Dupuytren's contraction in both hands.

"What they complain of is, that when there is an erection of the penis, it becomes curved towards the abdomen so as to make it most difficult to have connexion with their wives. The curve, which they describe as acute, is situated close behind the glans. Most careful examination of the organs reveals nothing. They can be pulled forward without any difficulty, and without showing any shortening band. There is absolutely, so far as I could make out, nothing abnormal when there is no erection. There is no pain in erection, nor is there any narrowing as of want of expansion of the cavernosa. They are all potent, and say that the difficulty of insertion overcome, they are as good as ever they were. They say that the condition developed in a few weeks, and has since remained stationary."

CASE XI.—*Curved penis, with some thickening in the cavernous bodies.*

Captain E. B. A——, a married man, aged 50, of healthy family and himself in vigorous health, consulted me in April, 1889. About a year previously he had noticed pain at the root of the penis during coition, and the act had become difficult. When in the morning he sometimes still had erection, the penis was not straight, but curved upwards and in a condition of painless chordee. I found on examination that there were ill-defined lumps in the corpora cavernosa at the root of the penis.

GENERAL COMMENTS.

Although this subject has at yet received but fragmentary mention, it is by no means novel. Mr. H. J. Johnson, in 1851, described "a chronic inflammation of the corpora cavernosa," and probably some of his cases were of the same nature as those which I now adduce. In most of my cases, however, no sort of "inflammation" or of "tumour" had preceded the annoyance of curving. Sir James Paget, in his admirable lectures on Gouty Affections of the Genital Organs, published in 1875, has anticipated, by suggestion, almost all that I have here said. He comes, indeed, very near to the hypothesis that the cause may in some cases be a contraction of fascia analogous to that which occurs so

frequently in the palm of the hand. His words are, "In gouty persons the production of fibroid tissue, thickening and contracting the outer layer of the urethral wall, and thus producing stricture, seems to be a process of the same kind as the thickening and contraction of the palmar fascia of which I spoke in the last lecture. Or it may be more nearly compared with that very troublesome, and generally gouty, thickening and hardening of portions of the fibrous sheath of the corpus cavernosum, which produces distortion of the penis in erection, and sometimes frightens with the fright of cancer.* Tough bands or lumps of such fibroid tissue may be felt on either side, or, more commonly, on the dorsum of the penis, or in the septum; and because they will not yield as the rest of the structures do to the erecting pressure of the blood, they hold the penis rigidly bent on them, as in a chordee." By far the most detailed clinical account of this affection is, however, to be found in Van Buren's excellent treatise on Diseases of the Genito-urinary Organs.† This author (page 23) first describes calcification of the fibrous sheath of the corpora cavernosa, a condition "which causes erection to be imperfect and painful." This condition is possibly a rare sequel of some forms of inflammation attributed to gout. It

* The following extracts give us, in the first place, a very characteristic example of the malady, and in the second a confirmation of Paget's statement that a suspicion of cancer is often aroused :—

On page 765 of the *British Medical Journal*, 1886, I find, under the head of queries, the following :—"Gouty Infiltration of the Penis. F. R. C. S. writes : 'A person subject to gout, the wrong side of fifty, has a thickening occupying the upper surface of the penis. When erection or partial erection takes place, the organ is curved backwards. There is no pain nor difficulty in micturition, but the glans and body appear to be atrophied to some extent. Sexual desire is not impaired, but intercourse has not been practised since the present condition has existed, now some years. It appeared to come on gradually after a prolonged gouty attack.'"

In the *Journal* for May 8 the following occurs :—"Gouty Infiltration of the Penis" (under signature G. W. B.) "Presuming that F. R. C. S. writes for advice as to the treatment of the above, I may say that I was acquainted with an elderly gentleman with so pronounced and hard an infiltration of a similar character to that which F. R. C. S. describes, that a distinguished Scotch surgeon looked on it as cancerous, and wished to remove the offending member. Nevertheless, it entirely disappeared under the prolonged use of full doses of iodide of potassium, given for another purpose."

† Clinical Lectures, page 380.

is probably very rare, and I do not remember to have ever myself recognised it. Next he describes a "Chronic Circumscribed Inflammation of the erectile tissue of the corpora cavernosa." This disease is stated to be very insidious, and to be characterised by the presence of "a hard flattened mass with distinct, sharply defined margins, occupying the substance of one or both corpora cavernosa near the surface, and feeling like cartilage." He adduces in some detail five interesting cases, in three of which the history of syphilis was wholly absent. Although he writes, "the prognosis is good," this must be taken to refer only to the patient's health, and not to his marital inconvenience, for none of the cases would appear to have recovered in that direction. In one case two brothers suffered. In all the cases a lump was noticed. Dr. Cameron, quoting from Van Buren, says that in one of the latter observer's cases the palmar fascia was contracted; but in my edition no mention is made of this interesting fact.

In 1879 the late Mr. Callender* produced at one of the St. Bartholomew Hospital consultations a man aged 50, in whom an induration was stated to have begun in the glans and extended backwards in one corpus cavernosum. It had not passed the septum pectiniforme. It had subsided where it first began. There was no history of syphilis or of hæmorrhage, and there had been no pain. Mr. Callender thought it possibly malignant, but Mr. Savory thought it more likely "gouty phlebitis."

Dr. Hector Cameron, of Glasgow, published some interesting remarks on these cases in the *Lancet* for 1884.

Although I have not refrained from quoting from authors who have described only inflammations and indurations, yet the special subject of my paper is the curving of the organ which constitutes such a troublesome symptom, and my contention is that it is by no means always preceded by infiltration of any kind. This is a point which seems as yet to have escaped attention, and these cases possibly constitute a group by themselves. On the other hand it is to be admitted that

* *British Medical Journal*, 1879, vol. i. p. 663.

all forms of chronic infiltration, whether phlebitic or of cellular tissue, are likely to be productive of curving, and that the line is very difficult to draw between the cases preceded by thickening and those in which the curving appears to be primary.

Our cases may perhaps be divided into the following groups.

I. Those in which no appreciable induration attends the symptom of curving. In these it may be conjectured that a shortening of parts of the fibrous sheath, or septum, analogous to what is observed in Dupuytren's contraction is the cause. It is of much interest to note that these cases occur at the same age as those in which the palm is involved; that in one case at least the condition has occurred to two brothers; and lastly and of chief importance, that the two disorders are not infrequently present together. An inherited tendency to gout is probably an antecedent in many cases.

To this group ought also to be assigned certain cases in which ill-defined, lumpy thickening is present; for it is well known that in the palmar contractions there are often masses of fibroid hypertrophy as well as a state of shortening.

II. In a second group we may place cases in which rounded well-defined swellings are identified which do not much tend to advance or vary. The true pathology of these is as yet uncertain. They are very rare.

III. In a third group must be placed cases in which definite induration of one or both corpora cavernosa has shown a tendency to advance, leaving the part behind it in a state of atrophy. It is in this class especially that something of the nature of thrombosis of the erectile tissue may be suspected. Only one corpus may be involved, and the curve will then be lateral instead of dorsal.

As regards treatment, we may probably say that it is only in cases in which there is definite swelling that benefit can be hoped from mercury or iodides, and in such these remedies ought certainly to have a trial. Whatever we may believe as to gout as a remote cause, we cannot be sanguine as to the result of enforcing any regimen or prescribing any special drug. After Dupuytren's contraction has once set in, no treatment except by operation avails anything to arrest its progress.

It seems not improbable that a large majority of cases of curved penis belong to this category.

In future we should note carefully the state of the palms in all cases of curved penis, and conversely it may be of interest in cases of Dupuytren's contraction to inquire whether any difficulty has been experienced as regards this organ.

ON ARSENIC-KERATOSIS AND ARSENIC-CANCER.

To the clinical observer nothing is more gratifying than to find his results confirmed by others. This pleasure has recently been my own in respect to the occasional tendency of long courses of arsenic to induce changes in the skin leading to epithelial cancer. When I first recorded certain facts giving support to this belief, few, I suspect, were inclined to admit that the occurrence was more than a coincidence, and nearly ten years have elapsed without any additional evidence being forthcoming. At a recent meeting of the Clinical Society, however, Mr. Arbuthnot Lane brought forward a very definite case. The patient had taken arsenic for thirty years for the relief of psoriasis, and he had finally become the subject of multiple growths of epithelial cancer.* The growths (which had been excised, and were demonstrated to the meeting) showed the usual conditions in the most typical manner.

Another case has also come under my notice. A gentleman of thirty-five has had three growths excised during seven years, all of them showing the structure of epithelial cancer. He is also the subject of keratosis of his palms,—in the form of hardened spots and patches of epidermis and little corns,—exactly such as was present in my first cases. His first growth was in the palm, near the cleft of the index and middle finger, just the position which was affected in one of my former cases. Two of the growths in this case have been excised from the scrotum. I removed one of these myself two months ago. It was very small, not much bigger

* This statement applies only to cases of actual cancer. Cases supporting the statement so far as it concerns keratosis of the palms and soles have been observed, and I believe that most dermatologists now accept it.

than a pea, but its structure has been pronounced characteristic by several authorities. This patient's history as regards arsenic is peculiar, for he left off its use many years ago, and the tendency to local keratosis still persists. He is now thirty-five, and he took arsenic when a young man for the cure of acne. He does not know how long he took it, but supposes that he "had twenty bottles." Nothing occurred whilst he was taking it, but not long after leaving it off a crop of little wart-like indurations appeared on his scalp, and were followed some years later by corns in the palms of his hands. It was not till ten years after he had left off the drug that one of these corns assumed malignant tendencies, and excision was required. Six years later another growth required the same measure, and, as stated, quite recently a third. On all occasions a careful microscopic examination has been made. It may be admitted that in this case, if it stood alone, the interval between the arsenic taking and the development of cancer is so long that some scepticism is permissible as to whether they were really cause and effect. It must be remembered, however, that the case is exactly like the others; that multiple epithelial cancer at the age of thirty-five is exceedingly rare; and that the stage of keratosis was developed not very long after the arsenic was disused. No similar cases have, so far as I know, been recorded, except in connection with arsenic, and it may be that the patient's memory as to the date at which it was left off is not accurate.

By the courtesy of the author, I have just received from Dr. Giletti, of Turin, a copy of a beautifully illustrated report on a case of "Symmetrical Kerato-dermatitis" affecting the palms and soles. His patient was a man aged 25, in good health, for whom, on account of an erythema of the palms (diagnosed "urticaria") following typhoid fever, Fowler's solution was prescribed in 1889. He took the remedy continuously up to March, 1893, when, for the first time, he came under Dr. Giletti's observation, with his palms and soles in a state of disseminated keratosis. The conditions shown in the plates are in most respects like those which were present in my own arsenical cases. A microscopic section

shows great thickening of epidermis, and no disease of papillæ or glands. This again is exactly what was present in my cases.

Dr. Giletti does not put his case into the arsenical group for several reasons which he states, but to no one of which, I may confess, can I attach importance. The first is that the disease continued to increase for two or three months after the arsenic was left off; the next that it remained in *statu quo* ten months later still; and, lastly, that he supposes (in error) that I found, and considered pathognomonic, "a crateriform enlargement of the mouths of the sudoriferous glands." As regards this last, it is the first that I have heard of it; and, as regards the others, it was deemed a not unimportant part of my observations that the conditions did progress after the arsenic was laid aside. I must therefore claim Dr. Giletti's case as in every way similar to my own, and in all probability due to arsenic. It is one in which not improbably cancer may follow.

Dr. Giletti quotes the case published by Hans Hebra as "Keratosi verrucosa palmæ, etc.," in "Arch. f. D. N. S.," 1890. He is apparently not aware that subsequently to its publication it was discovered that this patient, a young woman, had been secretly taking arsenic for many years. (See ARCHIVES, Vol. IV. p. 136.)

CONGENITAL DEFICIENCIES IN THE PECTORAL MUSCLES.

A young man, Mr. C——, who came under my treatment for syphilis, and whom I asked to strip, exhibited a very remarkable peculiarity in his chest. There was a large hollow under his left clavicle, which at first suggested either a badly united fracture of the bone or depression of the ribs. On examination, however, I found that it was due entirely to absence of the great pectoral muscle. A large development of the deltoid made the hollow yet more conspicuous. The patient was not fat, but very muscular, and accustomed to box and practise athletics. His clavicles were short and very strong. He referred the condition to his infancy; so far as he knew it had always been so. On examining his back, I found that the latissimus dorsi was alike wanting. The pectoralis minor was also absent, and possibly the teres major. About the latter I was not certain. Mr. C—— said that the defect caused little or no inconvenience; he could box well, and lift heavy weights above his head. In accomplishing the latter, he said that the difficulty arose in getting his arm above a right angle with the trunk; in doing this he was obliged to throw his body on one side. This disability, it may be remarked, is only an exaggeration of what is always experienced in performing this feat.

I made a demonstration of this patient in my lecture at the Clinical Museum on February 6th. The man then drew our attention to the fact that, when making a very strong expiration, he could, as he said, make his lung come out. Just to the left side of the sternum, between the first and second ribs, there was a rounded hollow, apparently due in part, at least, to deficiency of bone. At this spot he could quite easily produce a rounded, soft swelling the size of a

half walnut. The intercostal tissues were probably deficient at this spot.

We verified on this second occasion the facts which I have previously stated. The man could bring his arm forwards so as to touch his opposite shoulder with his hand. He appeared to do this by means of the anterior part of the deltoid.

Several parallel cases are on record, but no two are exactly alike in detail.

1. In a case shown by Dr. Burney Yeo at the Clinical Society in 1873, the sterno-costal portion of the great and the whole of the lesser pectoral were absent on the right side. The clavicular portion was hypertrophied. The radial pulse was very small.

2. Mr. Taylor, of Guildford, has observed a case in a volunteer in whom the whole of the great pectoral on the left side was absent.

3 and 4. Mr. Nunn has mentioned two cases, in one of which some deficiency of the latissimus dorsi existed.

5. Mr. John Tweedy has record in the *Lancet*, in which, as in Dr. Yeo's case, the thoracic portion of the great pectoral was absent together with the whole of the lesser pectoral. The clavicular portion of the great pectoral was hypertrophied.

6. Dr. Young, of Okehampton, has published in the *Lancet* for January 6, 1894, a case with illustration, in which the sterno-costal portion of the muscle was absent on the left side. There was also partial webbing of the fore and middle fingers on the same side.

7. Reverdin has published in "Bull. Soc. Anat.," 1867, p. 584, a case in which both pectorals were absent, together with deficiency in the cartilages of the third and fourth ribs.

8. Dr. Féré, in his work "La Famille Néropathique," gives woodcuts from a dissection of case in which the great pectoral was defective, and the lesser one wholly absent (p. 276).

9. Mr. Poland has published in the Guy's Hospital Reports a case, with a lithograph, showing the dissection of the region. The clavicular portion of the great pectoral was present, but the other part of the muscle and the lesser pectoral were

wholly absent. The serratus magnus was to a large extent deficient, and there were malformations in the left hand. There were peculiarities in the external oblique muscle. All the defects were on the left side. This case is very valuable on account of the completeness of the dissection and record. The latissimus dorsi was present.

10. In the *Lancet* for 1873, Dr. Forsyth, of Darlington, records the case of a man of 18 in whom the great and lesser pectorals were wholly wanting.

11. Dr. Willis, in the *Ohio Medical and Surgical Journal*, 1859, mentions a case in which both were absent on left side.

12. In the *Rev. d'Orthopæd.*, 1892, a case is given by Hazman, in which the great pectoral in a boy was partially absent.

13. Stern, of Budapest, 1890, gives a case of partial defect of the major and entire absence of the minor muscle.

14. In the *Archiv. f. Pathol. Anatomy*, Berlin, 1886, W. Gruber gives a case in which, in a young woman, the mamma and the sterno-costal portion of the great pectoral were absent on the same side.

Several other cases have been recorded from the dissecting room, but their details are not before me. It would appear that the deficiency has thus far, with one exception, been met with in males only; that it is equally common on the two sides, but never occurs on both; that the sterno-costal portion is more frequently absent than the whole muscle, and that the clavicular portion is never alone absent. All observers agree that the defect entails but little inconvenience. No one seems to have noticed whether in males the mammary gland is absent. It was so in the single case in which a woman was the subject of it.

In two cases, Dr. Yeo's and my own, there was some defect in the development of the costal cartilages. My own is the only case in which the whole of both pectorals and the latissimus dorsi were all absent.

ON THE CAUSES AND NATURE OF ERYSIPELAS.

ONE of the most important questions in what may be called speculative pathology is that which concerns the apparently spontaneous origin of diseases which are sometimes contagious. Those who adopt the modern doctrines of the parasitic origin of most forms of febrile disease hold that, having once proved that a disease is attended by cryptogamic growths and may be propagated by their transference, the question of spontaneous origin is put wholly aside. For the clinicist, however, there yet remain very serious doubts. Most undoubtedly many forms of disease which spread by contagion, and which appear to assume specific characters, are yet apparently capable of spontaneous origin. As good examples of such I class the diseases known as catarrh and erysipelas. Respecting both of these, I have already and on various occasions stated my belief, and endeavoured to marshal the facts which appear to me to support it. A case of erysipelas has, however, been recently under my notice which offers, I think, very instructive evidence in respect to this creed, and which encourages me to trespass on my readers' patience with a statement of the lessons which it appears to me to convey.

Before narrating the case I may just, in passing, remark that the believer in the spontaneous origin of some maladies which prove contagious is by no means compelled to accept off-hand the doctrine of spontaneous development of specific germs. We know as yet too little as to certain phases in the life-history of these germs to permit of our being dogmatic respecting them. On the other hand, we do know enough of the wonders of the cryptogamic world, of the facts as to heteromorphism and the possibilities as to long periods of

latent life, to induce us to keep our minds open and to accept with candour evidence from all sources. After all, what looks like a beginning *de novo* may be only the springing into life and activity of germs which have been long quiescent. It may be that we all of us, or most of us, carry about in our tissues latent germinal material from which, under suitable conditions, may be developed the specific and apparently parasitic elements of catarrh, erysipelas, tuberculosis, and even leprosy. It may be that these elements wait only for suitable stimulation and proper food, or that, like some of the fungi which grow on plants, they wait only till the tissue or the organism shall have received some damage which weakens the protective influence of vigorous vitality. It may be that although what we call contagion, or the actual transference of new germs in a state of activity, is much the most potent influence in arousing those already present in the tissues, it is far from being the only one capable of effecting this. We may perhaps, for the sake of distinction, call this the doctrine of latent germs. I will now proceed to examine, in the light which it supplies, certain clinical facts as regards the origin and spread of erysipelas.

In January last I had occasion to do an excision of the breast for a lady fifty years of age and apparently in good health. The operation was done in one of our largest and best managed surgical homes, and neither myself nor any of my assistants had recently been in connection with erysipelas cases. The wound was dressed with carbolic acid gauze in the usual manner. Within twenty-four hours of the operation a vivid redness of the skin was seen at most parts of the edges of the dressing. The patient's skin was in a state of intense irritation. She was quite unable to sleep, and had a certain amount of fever. The temperature on the morning following the operation was 101°, and on the evening of that day 102°. On the afternoon of the third day I removed the dressings, and found the whole of the skin where the gauze had touched in a state of the most vivid redness with superficial oedema. The edges of the wound, a very large one, were less red than the rest of the surface, having been protected by the oil-silk from the irritation of the gauze. I now applied over the whole of

the surface lint soaked in a spirit lotion, and ordered that it should be kept sedulously wet. I also administered tartar emetic in tolerably full doses. In proof that it was the influence of the carbolic acid in the gauze-dressing which had caused this extensive outbreak of erythematous œdema was the fact that the patient's forearm, which had been bandaged over the chest and had rested upon an upturned fold of the dressing, displayed a large patch of redness of a similar kind, and which rapidly proceeded to vesication. During the next week we continued the use of the spirit lotion most perseveringly, and of the antimony internally, and were fortunate enough by their aid to prevent any suppuration in the wound. Although the whole of the parts were very much swollen, red, and œdematous, yet primary union occurred throughout the length of the wound (at least twelve inches long), nor was there a single drop of pus from the drainage tube. This result I attribute to the constant use of the strong spirit lotion with which the patient was kept soaked. We may here dismiss the consideration of the wound and turn to that of the skin, which continued for some time to give us much trouble and anxiety.

The skin over the whole part which had inflamed remained red and œdematous in spite of the lotion. Vesications occurred on several parts. The feature which to my mind, however, was the most conclusive in stamping the disease as erysipelatous in nature, was its definite tendency to spread on the adjacent skin. Repeatedly the patient had slight attacks of chilliness followed by increase of temperature, and a large aggression of redness with œdema upon parts which had not been touched by the carbolic dressing. The edges of these newly invaded patches were abrupt, and the part involved pitted to the finger. Vesications also formed upon them, so that the characters of an erysipelatous inflammation were complete. The treatment required was also confirmatory of the diagnosis. Nothing checked the spread of the disease until I painted the surface freely with the ætherial solution of nitrate of silver. This was immediately effectual, and no spreading took place after the skin had been well blackened over a considerable margin in advance of the spreading edge.

I was obliged, however, to paint almost the whole chest back and front, and to follow the erysipelas as low as the upper part of the thigh. After the first week, tincture of iron in large doses was given instead of the antimonial mixture. The patient's recovery was complete at the end of a fortnight, and the temperatures became normal.* The parts near to the operation wound were, however, for several weeks longer somewhat œdematous. Let me repeat that no suppuration whatever occurred in the wound, nor was abscess at any time threatened.

A fact of great importance in this case, and one with which I was not made acquainted before the operation, is that the patient had twice formerly suffered from attacks of "erysipelas" on one leg. On one occasion it had followed a bruise, and on another the irritation of an arnica lotion. She had had, she said, through life a most irritable skin, any slight irritation being invariably followed by swelling.

I have had at least three other cases in which the facts were in the main similar to those recorded in this instance. In each, after the incision the patient had irritation from the carbolic dressing, beginning immediately on its application. In each this irritation developed into an erysipelatous dermatitis which, with an abrupt margin and a vesicating surface, travelled over a large extent of skin. In all, the only treatment which arrested its spread was the use of the nitrate of silver solution. In all, the inflammation ended without suppuration of the wound itself. In none of the cases was the constitutional disturbance very severe, although in all it was very definite. In one of them, nearly a week after the local

* The temperatures were on the day after the operation, 102.

Third day, 101·9.

Fourth day, 100.

Fifth day morning, 99; evening, 105.

Sixth day morning, 99; evening, 100.

Seventh day morning, 99·5; evening, 100·2.

After this date it continued but little above normal for a week. On the fifteenth and sixteenth days in the evening it was 100 again, and on the seventeenth day 102. This was coincident with a fresh invasion of erysipelas, which was put an end to by a free painting of nitrate of silver, after which the disease came to an end and the temperatures continued normal.

inflammation had apparently come to an end a blush of erysipelas appeared on one thigh and travelled down the limb some little distance before it was arrested by the nitrate of silver.

It may be convenient, at this point, to take a brief survey of the facts respecting erysipelas which have been ascertained by experimenters, in order that we may see how they fit with the observations of clinicists. The investigations of Dr. Fehleisen, supported as they have been by others, appear to place beyond doubt that "true erysipelas may be propagated by means of a micrococcus which is capable of cultivation."* It is a chain-forming micrococcus, quite immobile, and is found in great abundance in the lymph-spaces and lymph-vessels of the skin. Fehleisen did not find it in the blood, nor in the serum of vesications. With this micrococcus cultivated up to the seventeenth generation, the artificial production of erysipelas was repeatedly effected not only in the ears of rabbits, but in the human subject. In the latter it was tried in cases of cancer and lupus, in which it was hoped that the erysipelas might be of benefit. The most effective plan was found to be to scarify the part, and then rub in the virus. Mere punctures often failed, and the activity of the contagion did not appear to be very great. In rabbits the induced disease was mild and transitory, but in the human subject severe constitutional disturbance and high temperatures resulted, and in one at least a fatal result was threatened. Fehleisen makes it an important point that what he calls true erysipelas restricts itself to the skin, and does not cause suppuration, or spread to the cellular tissue. The shortest incubation period was 15 hours, and the longest 61. The appearance of local redness and the first rigor usually coincided. Seven persons were inoculated, and six took erysipelas. The seventh, who was twice inoculated without success, had had frequent attacks of erysipelas before the last, only two or three months before.

As regards immunity conferred by an attack, Dr. Fehleisen

* See New Sydenham Society's volume, "Micro-parasites in Disease," p. 260.

came to the conclusion that there was a short period. In several instances in which patients had suffered not long before, inoculation failed ; but in one it succeeded, in October, 1882, in a patient who had suffered from erysipelas in December, 1881.

It will be seen that we are now face to face with the question, What is erysipelas, and to what extent shall we restrict or enlarge the meaning of the word ? Very far indeed, however, is the question from being a merely verbal one. It concerns things which are of the utmost importance in our clinical work. According to the conception of the experimenter, erysipelas is an inflammation affecting the skin, only spreading from the point at which inoculation has been effected, of transitory duration and without complications. Some experimenters would definitely exclude all forms affecting the cellular tissue, and deny that phlegmonous erysipelas is erysipelas at all. It may be well to review the facts as seen from the clinicist's point of view.

The practical surgeon recognises as erysipelatous all forms of inflammation of skin or mucous membranes which show a tendency to rapid spreading in the tissue affected, have a well-marked edge, produce œdema and vesications, and leave the part first affected as they travel to others. He believes that erysipelas may affect the cellular tissue, and that when it does so it may cause diffuse suppuration. He believes that if the erysipelas has begun superficially, *i.e.* in the skin itself, it will probably restrict itself during its spreading to the skin ; but that if it have commenced in the cellular tissue (from a deep wound), it will spread in the cellular tissue. He holds also that the form of endo-metritis with peritonitis constituting puerperal fever, may be caused by the introduction of the erysipelas virus. In connection with these cases and many others, he believes firmly that the specific virus may, in spite of all ordinary cleanliness, cling to a surgeon's hands and clothes for many weeks. As regards the origin of the disease, he by no means holds that it is always due to infection, since very severe and even fatal cases often appear to originate from exposure of the surface to cold or other influences which

lower the vitality or irritate the tissues. He does not see in erysipelas a malady which, like variola, measles, &c, prevails only in epidemics, but encounters it in isolated cases under very various conditions. Indeed, although fully recognising its contagious nature, he does not regard its more ordinary forms as being virulently contagious. He holds it for a well-established fact that those who have once had erysipelas remain through life more liable to fresh attacks than other persons, and believes that these recurring attacks are specially apt to occur in the same part which was first affected. Thus, in patients the subjects of elephantiasis, he recognises periodically recurring attacks of erysipelatous inflammation as the main cause of progressive aggravation. Finally, he recognises in "erysipelas" a form of contagious inflammation which may vary much in type, being sometimes very severe and attended by high fever, at others very mild; and at the same time he believes that all its forms are transmutable.

From what has been just said it may be inferred that the surgeon would prefer to speak of erysipelatous inflammation rather than of "erysipelas," the latter suggesting too much of specificity and of sameness in the malady in question. Whilst by no means wishing to diminish the importance of the bacillus in the rôle of phenomena, he is disposed to accept with caution the inferences which may appear to be logically deducible from its discovery. For the present, at any rate, he dare not place it in the same category as the specific virus of small-pox or syphilis. He cannot help suspecting that, although susceptible of pure cultivation, it is yet also capable of considerable modifications as regards its vital endowments and activities, that it may not improbably lie dormant in the tissues for indefinite periods, and that it may combine with other forms of virus and produce mixed results.

The alternative of accepting some such creed (of modifiability) as this appears to me to involve the existence of a number of distinct specific poisons—one for erysipelas as we see it on the head and face from cold, another for that following external irritants (such as in the case which I have narrated), a third for that of traumatic erysipelas of the skin,

a fourth for that of phlegmonous erysipelas as it affects the cellular tissue, and so on.

I confess to a distinct belief that the one supposition fits the facts far better than the other. The proof, of course, lies in the production of evidence of transmutation and communicability. In the case which I have narrated, the utmost precautions were taken against contagion, and none occurred. Thus we lack the proof which the production of the disease in another person would have afforded that the poison of true erysipelas was really present. Nor were any inoculation experiments tried. It is therefore not possible to put on paper evidence of this kind, and it is open to the controversialist to hold that the malady, after all, was not "erysipelas." I may repeat that I know of no external characters by which the form of dermatitis which occurred could be distinguished from it, and may add that, from other cases which have from time to time occurred in my practice, I have no doubt that, had precautions been neglected, the disease would have spread.

DISEASES OF THE SKIN.

No. LXXXII.—*Two cases of Herpes affecting the inferior Dental Nerve.*

The distribution of herpes is often well worthy the observation of the anatomist. I have just seen two cases in which the mental branch of the inferior maxillary was the nerve affected. This is in my experience very rare. In association with it occurred some small groups of vesicles on the cheek, near the ear. In the two cases the distribution was exactly alike.

The first of the cases was sent to me at one of my Tuesday afternoon lectures by Mr. Waren Tay. The patient was a woman aged thirty-six. Without any known cause, the right half of her chin became covered with herpetic vesicles, which afterwards sloughed. There were some on the lip and a few in the cheek. It was two months after the eruption when I saw her. Deep scars had been left which involved exactly the region supplied by the mental nerve and no more. Upon the cheek, however, a little in front of the ear, there were two isolated conspicuous scars, one a little above the other. There were none on other parts of the face. It was said that there had been some spots on the tongue, but of these no traces remained.

The subject of my second case was a young lady of twenty, for whom, on account of psoriasis, I had ordered full doses of arsenic three weeks before her attack of herpes. She came to me on December 21st, with the right half of her chin and lower lip covered with ulcerating vesicles. There were ulcers on the inside of the lip, but the eruption was, with the exception about to be stated, precisely limited to the region of the mental nerve. The exception consisted in the presence of a

single isolated group as large as a shilling, but oval, with vertical axis upwards, on the cheek. It was exactly an inch in front of the tragus of the ear. There were no other groups on the face. There could be no doubt that in this case the herpes was caused by the arsenic. It is of interest to state that although it was severe it had been almost painless, and that both the patient's parents had suffered from zoster in former years.

It is not difficult in these cases to explain the occurrence of herpetic vesicles on the parts where they are seen, for branches of the inferior maxillary are known to be supplied to all these regions. The difficulty is to say why so much of the territory of this nerve is omitted; why the groups of vesicles are so limited. The group of herpes in front of the ear, for instance, may be referred to the twigs of the auriculo-temporal, but why does the whole of the external ear escape, since it gets its supply almost exclusively from this nerve?

In Mr. Tay's patient the eruption was more extensive than in mine, and the temple and adjacent part of the scalp showed vesicles. Some also occurred on the side of the tongue and in the cheek pouch. Possibly in this case the gustatory branch itself was affected. It was remarkable, however, that over the parotid region there were but two small groups, and none, I believe, had ever been noticed on the ear itself.

No. LXXXIII.—*The Genesis of Urticaria Pigmentosum.*

There is satisfaction in witnessing the birth of things. A lady who was under treatment for syphilis became much alarmed about an eruption on her infant, and brought him to me. He had been born before his mother contracted the disease, and was in excellent health. His body was covered with urticarious flea-bites. The central puncture was visible in many of them, and there could be no doubt as to the diagnosis.

Two years later I saw this lady again. She told me that her boy had remained in good health, but that he was "still liable to his eruption." She said that it was worse in

summer, but persisted more or less through the winter, and was very liable to come out when he was heated. She added that it was leaving brown stains.

My theory of "*urticaria pigmentosum*" is, that it is a sequel of infantile urticaria caused by fleas and lice. This form of urticaria does not by any means cease with exemption from the exciting causes. The wheals relapse over and over again in connection with other forms of irritation, and the skin remains irritable for long. If the child be of dark complexion, the papules will under such conditions gradually become pigmented.

No. LXXXIV.—*Ringworm and Favus transmutable.*

Willis asserts that ringworm and favus are transmutable. "They are frequently traced from individual to individual, and seem to have the power of engendering one another. I have, for instance, seen *T. lupinosa* arise on the shoulder and arm of a girl fifteen or sixteen years of age, who was in the habit of fondling and nursing her sister, a child of seven or eight, affected with *T. simplex* on the scalp."

It appears to me that there is much clinical evidence in support of Willis's creed. Most of our Atlas have plates which represent conditions exactly like ringworm in conjunction with favus. In spite of the evidence as to differences of specific kind in the cryptogams, I am myself much inclined to suspect that all forms of tinea are transmutable.

No. LXXXV.—*Prevalence of Itch in Scotland in the Last Century.*

In the year 1722, a young lady visiting at a country hall in Scotland, after lamenting that all the male visitors were married, thus expressed herself:—

"However, I live in hope that a loose man may come, though it will be some time first, for all the best families in the parish are laid up with what they call the yoke—which in England is the itch. We have had a noble captain, who dined in a brave pair of white gloves, to my very great surprise; but it was when I was in my London ignorance."

SYPHILIS.

NO. LXVII.—*Two cases of Gumma of the Parotid.*

I have recently seen two cases in which it seemed that the parotid gland was the seat of syphilitic inflammation. In both, suppuration with some sloughing resulted. The first was in a man named B——, æt. 50, whom I had seen, on account of syphilitic lupus of the forehead and a lumpy syphilitic tongue, on several occasions during 1891–2–3. During this period, under treatment by specifics his lupus was quite cured, and his tongue much improved. In October of 1893, however, he came to me with great enlargement of the right parotid. An abscess had been opened by the surgeon under whose care he was, and much shreddy, sloughy tissue had been discharged. When he came to me there was a sinus leading deep into the mass of induration, from which saliva was freely discharged. A probe passed into the middle of the mass for at least one and a-half inches, but I could not detect any calculus or bare bone.

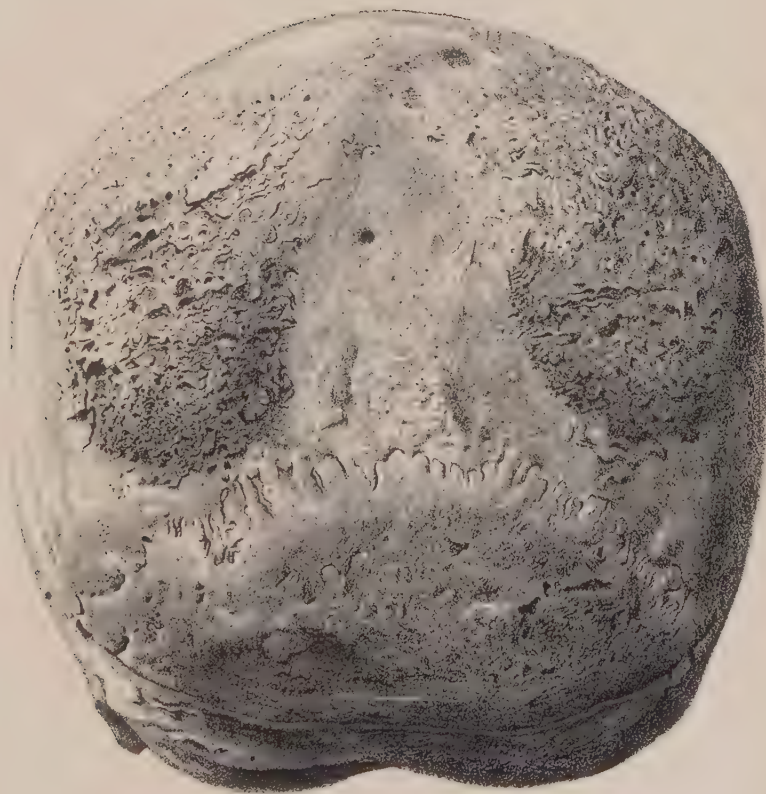
The enlargement and induration of the gland were such as to suggest the possibility of malignant disease, but this seemed improbable on considering the way the structures had behaved since the incision. The swelling of the gland had been present for at least three months before it was opened, and had been quite painless. The date of the syphilis was many years previously.

A second case, very similar to the above, came under my notice at the Clinical Museum. The patient had been kindly sent to me by Mr. Waren Tay from the London Hospital. The skin over the parotid region had been extensively destroyed, and a granulating surface occupied

PLATE CXVII.



THIS Plate, taken from a specimen in the Dupuytren Museum, shows the usual position of the periosteal deposits on the parietal bones, known as "Parrot's Bosses." They are characteristic of inherited syphilis.



the position of the gland. It seemed probable that a large part of the gland had sloughed, and there was partial paralysis of the facial nerve. The history was of syphilis eight years before, and of a chronic painless swelling which had ulcerated. The patient was a man of about twenty-eight, who had had but little treatment for his syphilis, and who was at the time of the observation suffering from periostitis of one parietal bone.

No. LXVIII.—*Syphilitic Enlargement of the Mammary Gland in a Man (Chronic Mastitis).*

In connection with the above cases I may mention a remarkable instance of swelling and enlargement of the mammary gland, in a man, in connection with syphilis. In this instance a recent syphilis was of only eighteen months' duration. The left mammary gland became enlarged in all dimensions, hard and painful—it was as large as the half of a small orange; its margins could always be quite easily traced, and no suppuration was ever threatened. In spite of mercurial treatment under which other secondary syphilitic symptoms yielded, the breast remained large for several months. Finally it became reduced to its normal dimensions under iodide of potassium.

It was probable in this case that the patient's syphilis was a second attack. He had been treated for a chancre some years previously. The enlargement of the breast undoubtedly occurred amongst secondary phenomena which were due to a recent infection, but it may still have been due to the old disease, and therefore of the tertiary class. Only one gland was affected, and the difference in results from mercury and iodides was most definite.

No. LXIX.—*Results of the treatment of Syphilis in husband, wife, and child.*

A married man whose wife had borne him four children, who were living, contracted a chancre. It was on the penis, but he throughout persisted that he did not know in the least

how it came there. His wife was at the time more than seven months pregnant. Cohabitation was continued, and the disease was not identified until more than two months later, when the husband was covered with eruption. He consulted Dr. P—— for “a skin disease,” apparently in innocence of its real nature. It was, of course, at once diagnosed, and a day or two afterwards he came to me for confirmation. The eruption was abundant, the tonsils were sore, and there was in the free border of the prepuce the parchment remains of a chancre. On the next day he brought to me his wife and infant. The former had an eruption and a sore tongue and throat; the latter, a very fine baby, had only three small ulcers on its scalp. For the husband and wife I prescribed one grain of grey powder three or four times a day, and for the infant inunction of mercury.

I did not see any one of the three patients again until exactly a year had passed, but they had remained under the observation of a well-skilled family surgeon, and in all mercury was continued as first prescribed the whole time. When they were brought to me at the year's end, I found the infant well grown and very fat, and absolutely free from symptoms. The only suspicious feature was a depressed bridge of nose. I was told that it had been by far the best tempered baby of its parents' family, and had thriven better than any previous one. The gums of its upper jaw were swollen and red, probably from the mercury, but possibly only from dentition. It had six good teeth.

The father and mother were in equally good case with the infant. They had not, between them, a single reminder of syphilis, except that there was a bald patch on the woman's tongue. Both had enjoyed excellent health during the treatment, and the man had actually gained four pounds in excess of any former weight.

It may be doubted whether in this instance the infant took the poison in utero from its mother's blood, or acquired it by direct contagion during birth. Its earliest manifestation was three sores on the scalp, and although these never assumed any characteristic conditions, they may have been chancres. They healed as soon as the mercury was begun, and “thrush”

and snuffles, with an eruption on the buttocks, were the only other symptoms. The mother, although she had not mentioned it, was aware at the time of her confinement that she had a sore.

No. LXX.—*Depressions in the Parietal Bones in connection with Syphilis.*

Mr. H. S. A—— has definite depressions in his parietal bones, just like those of the so-called senile atrophy. That on the right side is considerably deeper than that on the left, but there is no doubt that they are symmetrical. I recognised the one on the right two years ago, and made a note. At that time I did not find one on the left, but this may have been because it was then concealed by a sebaceous cyst, which has since been excised.

Mr. A——'s history points clearly to syphilis and to nodes, but not without some peculiarities. He had a chancre in 1884, and took mercury, but nothing whatever followed it until, in 1889, he began to suffer from pains in his bones and joints. At this time he had pain in the right parietal (where the hollow now is), and he himself thought there was swelling, but his surgeon, who often examined it, always denied the swelling. There was, however, no doubt that his right clavicle was swollen, and that there was a lump on the left frontal bone and one on the lower part of sternum.

At the date of my writing these notes (December, 1893) Mr. A—— has no nodes anywhere. His right clavicle is decidedly thicker and larger in all parts than the left. The swellings which were formerly present on the frontal bone and on the sternum have left no traces. He has taken iodide of potassium in month's courses with month's intervals for the last two years. He says that it always relieves him of the "sensations in the bones" and joints. His nodes have never been very painful, but are attended by "pinching sensations," and for these he takes the iodide. He dislikes the latter, as it always depresses him.

[The illustrations which I now introduce are taken from skulls in the Dupuytren Museum, to which I alluded in the

last number of ARCHIVES. In the case described above, the depressions are in precisely the same positions as those shown in the lithographs.]

No. LXXI.—*Mental defects in connection with inherited Syphilis—Inability to learn to read.*

Master T—— presents a very peculiar form of mental defect in connection with inherited syphilis. He is an only child. His father died in an asylum, having suffered from general paralysis and fits. During his infancy the boy was extremely ill, and was twice thought to be dead. He took much mercury, the symptoms of inherited syphilis being well marked. He has now a most characteristic set of notched and dwarfed teeth. His head is large, and features rather small. The skin of his face is dry and harsh.

I first saw Master T—— in July, 1887, when he was ten years old, and then recorded the opinion that he was partially idiotic. He had extensive changes in both eyes of that type of choroido-retinitis which simulates retinitis pigmentosa. Both discs were somewhat grey and waxy. He could see well with the left, but only very little with the right. The right eye diverged. I did not detect anything with the ophthalmoscope to explain the difference between the two eyes. He had never had keratitis, nor was he in the least deaf. His head had a girth of 22 inches, and measured $12\frac{1}{2}$ inches from ear to ear.

I saw the boy again in 1888, and for a third time in 1892. On each of these occasions he seemed to be making progress as regards the development of his mind. He was growing well, and in good general health. I was told that he could remember anything he was told, was interested in many subjects (astronomy, electricity, history, &c.), and fairly well informed; but, remarkable fact, he could not learn to read. Music, as other accomplishments, he learned by the ear. What he was once told he never forgot, but he could not master the art of spelling. He knew his letters, but could not combine them into words.

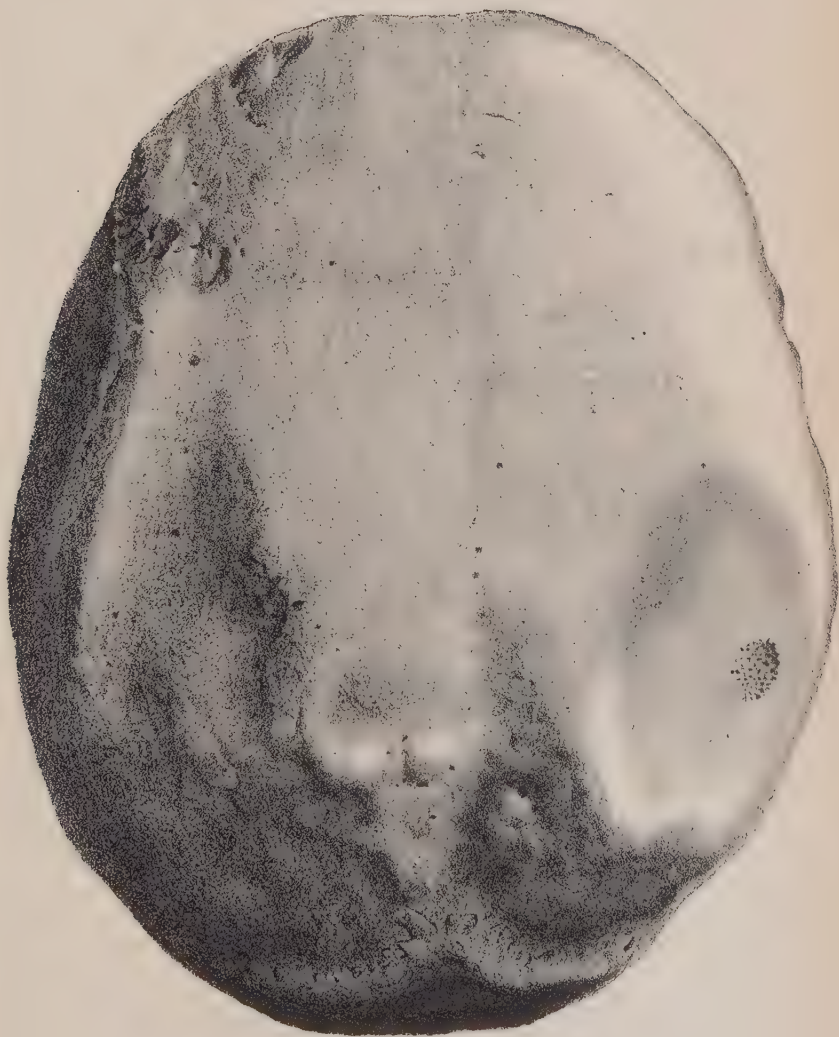
T—— is now (1894) nearly seventeen years old, and his



PLATES CXIII. & CXIV.



THESE two Plates are both from photographs of specimens in the Dupuytren Museum. They illustrate the symmetrical depressions in the parietal bones, which are described at page 228, and again referred to in the accompanying text (page 359).



condition is still that just described. He is good company, and can converse well on any subject; but he cannot learn to read. He is painfully nervous in some matters, and dare not go into certain rooms alone. He is as bashful as regards exposure of his person as a girl, and I have little doubt, from his voice and the downy condition of his face, that his sexual system is but imperfectly developed. He is cheerful, good-tempered in the main, but occasionally obstinate in little things.

It is of importance to note that improvement rather than the reverse is gradually taking place. He can see better than he did, and his intellect improves. He tells me that he still hopes some time to learn to read. From the size and shape of the head, I should judge it probable that he has suffered from hydrocephalus.

This case offers a marked contrast to those which I recorded at page 216 of the present volume. In them we had to deal with a form of aggressive dementia from hereditary syphilis, which had not shown itself until the patient was several years advanced from infancy. In them no severe cerebral symptoms had been present during the infantile or secondary stage of the disease. In them the changes were aggressive. In this case, on the contrary, the symptoms both in brain and eyes were severe in early infancy, and have left their consequences; there is, however, no tendency to aggression, but the reverse. Both as regards sight and brain power, the patient is improving as he gets older.

THERAPEUTICS AND DIET.

No. XLIX.—*Chloroform safer than Ether.*

I have for many years been a staunch advocate of ether as the safest anæsthetic. I am beginning, however, to recognise exceptional circumstances. On the authority of Mr. Bernard Pitts, who gives me leave to mention his name, I narrate the following fact. A patient was about to be operated on for strangulated hernia. Chloroform was given, and very alarming syncope resulted. Amongst other measures for resuscitation, the body was held for a time head downwards. The pulse having by this means been restored, the patient was again laid on the table, and the operator was about to proceed when he found that the hernia had gone. Recovery resulted. Had ether been given in this case the event might have been very different.

No. L.—*Hot Feet from Champagne.*

A gentleman, aged 56, who was distinctly gouty, and who inherited gout, told me that if he drank champagne, it had the effect of making his feet so hot that he was obliged to put them outside the bed in order to get to sleep. His brother was diabetic, and his mother had albuminuria. He had also the curious symptom of liability to a feeling, in a round patch on inner side of one instep, as if he had been scalded. He said that the smarting was most severe, the attacks usually lasting a minute. This patient had the hard, bright, polished nails which I have often observed in the subjects of gout. He had neither sugar nor albumen in his urine.

No. LI.—*On Egg-poisoning.*

The following letter from a distinguished physician is of much interest in reference to idiosyncrasy in respect to eggs. I have written about this repeatedly, for it is a very important item in the knowledge of dietetics. Not a few persons go through life without discovering their susceptibility, and perplex their medical advisers by accounts of the more or less violent gastric attacks to which they are liable. Drugs are prescribed and codes of meals, &c., drawn up, when really all that was wanted was to entirely forbid the use of eggs in all forms of cookery. I have met with many cases in which this simple injunction has cured the patient for life. The experience recorded in the following letter is an exact repetition of that of another medical friend. Both were asthmatics in early life, neither of them can touch honey, both are gouty, and in both the susceptibility to eggs was not present in youth.

“MY DEAR SIR,—I have just read in the current number of the *British Medical Journal* your ‘Example of Egg-poisoning.’ My own personal experience in this matter is curious, and may possibly interest you.

“I am fifty-four years old, and have a ‘good all round’ digestion. For the first twenty years or thereabouts of my life I could eat eggs freely and digest them comfortably. Then, in the course of a few years, they got to disagree with me, so much that, though as fond of them as ever, I had to give them up, and have never since been able to eat a single mouthful of one without suffering great misery. They cause me severe abdominal pain and flatulent distension, which begin about half an hour after the egg has been swallowed, and last till it has passed through the small intestine into the colon; then they cease.

“I accidentally discovered that the offending portion of the egg was the albumen. I can eat any amount of *yolk* with comfort, but a single teaspoonful of the *white* (whether cooked or uncooked) puts me in misery for hours. The only other thing in the whole range of eatables that disagrees with me is honey. This causes exactly the same symptoms as egg albumen, and, oddly enough, my intolerance of honey was acquired just about the same period of life as was my intolerance of egg albumen.

“I have come across several instances of an egg ‘acting like poison.’ In some of them I have proved by experiment that the albumen of the egg was the real offender. I suspect it is so in most cases.

“The only change I can think of as having taken place in my constitution, concurrently with what I have above said, is this: that whereas up

to 20-22 I suffered much from spasmodic asthma, I have since then been quite free from it. I merely mention the fact; whether it has any clinical significance I know not. I have no doubt that I inherit a taint of gout (very slight)."

No. LII.—*Idiosyncrasy as regards Milk as well as Eggs.*

A gentleman, aged 30, who was under my care for syphilis, told me that eggs were a poison to him, always causing a distressing feeling at the epigastrium. A small piece of cake made with egg would cause him great discomfort. Milk, he said, if taken in quantity, had a somewhat similar effect.

I can support this patient's statement as regards milk by the experience of another observer who cannot take eggs, and in whom also large quantities of milk always disagree in a similar though much less marked degree.

No. LIII.—*Lupus Sebaceous in numerous small scattered patches on head, neck, and shoulders—Strong family history of tuberculosis—Patient deeply pigmented as a consequence of a long course of Arsenic—Dry soles and palms—Senile black freckles, largest on right side.*

Mrs. M——, æt. 40, the wife of a clergyman of phthisical family, and herself the subject of delicate lungs, came to me for a somewhat peculiar form of lupus erythematosus. She had a number of quite separate patches on the face, shoulders, and chest. There were symmetrical patches under and behind the ears, one on right temple, one on the scalp, three or four in the clavicular regions, and two large ones in the middle of the back. The eruption was believed to have begun on the face, about three years ago, by what was then called acne on the cheeks and nose. There was nothing, when she came to me (January 3, 1894), to be identified as lupus in these parts, but the nose was somewhat red and rough.

When Mrs. M—— consulted me she had been taking arsenic in four-minim doses for more than a year. Her skin

is everywhere very dark, her heels are cracked and sore, and the palms and soles very dry. "Often there are a lot of little pimples along the sides of my feet, which burn and itch." On her face there are black freckles, on the eyelids especially, abundant and large on the right side. Her mother's family is very consumptive. She herself suffered much from chilblains. Her mother lost nearly all her brothers and sisters from consumption. Her eyes have been irritable all the summer, often bloodshot, and she feels as if she could not open them.

For five months, whilst treated by arsenic, she has had a constant cold in the head. Nothing moves it. She has sneezing and nose running, and often sits up in the night sneezing.

Mrs. M—— was a florid, energetic lady, rather thin, but not out of health, excepting habitual catarrh and dry cough. I cauterised many of the patches with nitric acid, and advised her surgeon (Mr. H——, of H——) to touch the others.

No. LIV.—*Intolerance of Light in Children.*

I have found a combination of belladonna and bark with small doses of opium very efficacious in cases of intolerance of light in children. The following is a prescription which agreed well in the case of a girl of thirteen, in whom a slight attack of pustular ophthalmia intolerance, without obvious local cause, had persisted for a long time. Three minims of Nepenthe, ten of Liquor Cinchonæ, and a sixth of a grain of extract of Belladonna. This was taken three times a day regularly for five weeks, at the end of which time the patient came to me again entirely free from her trouble, and in much improved health. It is needless to say that local treatment must be used if pustules, ulcers, or granular lids are present.

No. LV.—*Iodides disagreeing.*

Mr. S——, 36, who has taken iodides on and off for some years, says that they always make him feel cold. He has

also some catarrh when he takes them, but his chief discomfort is constant chilliness.

Dr. G—— complains that iodides make his legs ache and swell.

The following were the expressions used by a patient who had had considerable experience of the iodide :—"Iodide of potassium seems to work very strongly on me; it is awful stuff. It depresses me, and almost deadens my brain."

No. LVI.—*The Small-dose Suppression Treatment of Syphilis.*

One of the advantages of the small-dose treatment of syphilis is that it does not entail any interruption of the patient's avocations.

A sea-captain, aged 53, who was, as he said, the surgeon to his own ship, consulted me on account of a chancre close to the meatus. It had been present two months, and he had a papular eruption and hard glands. I prescribed one grain of grey powder to be taken six times a day with a tenth of a grain of opium. I did not see him again for three months, and meanwhile he had been a voyage, and had been much exposed to weather. When he returned to me he was in excellent health, and wholly free from symptoms. He reported that he had, with the exception of two or three weeks at one time when they had been omitted on account of intercurrent illness, taken the pills quite regularly. Although he had sometimes in bad weather been fifty hours on the bridge he had borne the mercury well, and had gained flesh. His report was, "My tongue has been cleaner and my digestion better than ever in my life before. I used often, when at sea, to suffer from constipation and to feel bilious, but I have had nothing of that the last two months."

No. LVII.—*Physiological effects of Arsenic.*

A young gentleman consulted me for a troublesome and severe form of palmar and plantar psoriasis. He had already had much treatment, and I was very desirous to cure him.

Arsenic in nine-minim doses three times a day was ordered in combination with a sixteenth of a grain of tartarised antimony. He took these doses for a fortnight without the slightest inconvenience, and with the utmost benefit to the affected parts. Suddenly, at the end of that time, the palms and soles, nearly well of the eruption, became exceedingly tender. He complained that they felt hot and smarted. On leaving off the arsenic this condition disappeared.

No. LVIII.—*Selections from Dr. Mead.*

The following quotations from Dr. Mead's writings are, I think, of some permanent interest:—

“Dr. Robert Whytt, of Edinburgh, repeated the experiments (dissolving calculi) with lime-water made with oyster-shells and cockle-shells well calcined, by pouring seven or eight pints of water on one pound of the fresh calcined shells. The experiments succeeded with both sorts; but he soon found that the oyster and cockle-shell lime-water possessed a much greater power of dissolving the calculus than that of stone-lime. Then he proposes the method of drinking the shell lime-water, the quantity of which may amount gradually to four pints every day for adults, and for children less in proportion; and he concludes with instances of the happy effects of this method.”

“Mead is likewise a proper drink; for honey is an excellent diuretic. A spoonful also of honey in a glass or two of the infusion of marshmallow roots is an admirable cleanser of the kidneys, if used for a constancy. The wines ought to be the softest and smoothest that can be had; and the lightest, clearest river or running water is preferable to all other. For, as Pliny says, those springs are particularly condemned the waters of which line the vessels, in which they are boiled, with thick crusts.”—Nat. Hist. Lib. xxxi. cap. 3.

“Another remarkable circumstance is, that immoderate joy, too long continued, as effectually disorders the mind as anxiety and grief. . . .

“I have formerly heard Dr. Hale, physician to Bethlem-hospital, and of great experience in these matters, say more than once, that in the year MDCCXX, ever memorable for the iniquitous south-sea scheme, he had more patients committed to his care, whose heads were turned by the immense riches which fortune had suddenly thrown in their way, than of those who had been completely ruined by that abominable bubble. Such is the force of insatiable avarice in destroying the rational faculties!”

This observation may be recalled to mind with some comfort in the year MDCCCXCIV.

No. LIX.—*The Tannate of Mercury.*

I am not fond of trying new drugs for purposes which old ones seem to serve efficiently. My favourite preparation of mercury, for internal use, has long been the grey powder. On the recommendation of a medical friend I have recently tried the tannate, a salt which I was assured was free from the inconvenience of causing diarrhœa, which it must be admitted grey powder not unfrequently does. I prescribed the tannate without opium, and was disappointed to find that it purged every patient who took it. Opium in combination appears to be just as necessary as in the case of grey powder. I have therefore returned to the latter, and shall probably never prescribe the tannate again, as it appears to possess no single advantage. Multiplicity of remedies for the same purpose is an evil, especially when one has a definite superiority to the others. It causes waste of time and thought, and interferes with uniformity of observation. Habitual simplicity of prescription has the great advantage of leaving the mind and memory free to attend better to the clinical peculiarities of the case.

CATECHISM OF SURGERY.

No. CLXXXIV. — *Memoranda in reference to the study of Diseases of the Skin.*

We must study causes rather than names. In other words, we must try to get a clear conception of the morbid process, its cause, nature, and course, and not content ourselves with a knowledge of its conventional name.

If any names in ordinary use comprise a knowledge of cause and course, let us take them thankfully; their employment in future will save us much trouble, but all names must be clearly defined.

We must remember that many diseases of the skin which have got different names are yet not by any means wholly distinct. They often join each other. Between many of the groups there are definite connecting links.

If an eruption is general, but not accurately symmetrical, it is very probably due to a local cause (scabies, pediculi, contagion of cryptogams, contagion of pus, &c.).

If an eruption is definitely and constantly non-symmetrical, it is either a neurosis or due to a local cause.

If an eruption which is constantly non-symmetrical is arranged on plan, *i.e.* in definite regions, it is probably due to nerve-influence. If it is quite irregular, it is due to a local cause.

When an eruption shows a definite tendency to symmetry, is persistent or tends to speedy relapse after apparent cure, it is probably allied to the Psoriasis group.

We must not judge of symmetry or non-symmetry by a single case, but collect several cases of the same kind.

When a symmetrical eruption goes through short and definite stages and disappears spontaneously, it is an Exanthem.

All eruptions which are constantly and definitely benefited by arsenic, but which are difficult to cure and tend to relapse, are probably related to psoriasis.

If an eruption consists of little hard red spots which are formed at the mouths of hair follicles, and do not tend to suppurate, it is a *Lichen*. We must remember, however, that the word thus used has a pathological rather than a clinical meaning.

If an eruption consists of red spots which tend slowly to suppurate, and which occur by preference on the face and shoulders, it is an *Acne*.

If an eruption affect the parts where large hairs grow, is attended by suppuration at their roots and causes their fall, it is a *Sycosis*.

If an eruption affect the hands and feet, with possibly nose and ears, and is always worse in cold weather and better in summer, it belongs to the *Chilblain* group.

Syphilis may simulate almost every form of skin disease which can be named, and has no types of eruption which are peculiar to itself. We have syphilitic lichen, acne, psoriasis, pemphigus, roseola, lupus, and many more.

If a patch of eruption spreads gradually at its edge, and shows a tendency to heal in the middle, leaving more or less of scar, it is, with a few exceptions, either lupus or syphilitic lupus.

Always remember that you have to do not alone with the special cause of the eruption, but with the peculiarities as regards tissue-health of the individual on whom the cause acts.

If an eruption affects chiefly the face and the backs of the hands, and is worse in sunny weather, it belongs to the group of sun-blains, or summer eruptions.

The first primary division of skin diseases is into two classes—1st, those due to causes acting externally; and 2nd, those due to causes acting from within.

We must remember, however, that in those caused most definitely by external causes, such as scabies and ringworm, the state of the patient's tissues will much modify the result.

Diseases caused by the state of the blood usually display bilateral symmetry.

Diseases caused by nerves usually display conspicuous deviations from bilateral symmetry.

An eruption which is definitely one-sided, of short duration, and spontaneously curable, is probably, whether vesicular or papular, of the nature of Zoster.

The term Herpetiform may be conveniently applied to all eruptions which are arranged in corymbiform streaks on the pattern of zoster.

The patches of morphea are often arranged exactly like those of zoster, and the same is true of certain forms of ichthyosis in streaks. These may suitably be spoken of as "herpetiform."

With the exception of the neuritic group, most forms of inflammation of the skin are attended by the development of contagious elements, and in virtue of their existence tend to spread.

A knowledge of the fact that most forms of dermatitis are more or less contagious (to the patient), gives the clue to successful treatment.

Many so-called "diseases" are due to congenital defect in the organisation of the skin.

Some congenital defects in the formation of the skin are obvious at birth, but many are only revealed when the skin is exposed to air and sun, or in connection with advance in age.

If a peculiar disease affects several members of the same family, we may be sure that it is due to defective organisation.

Some defects in organisation are attended by structural peculiarities (*e.g.*, ichthyosis), whilst others entail rather liabilities to disturbance of function.

It is a mistake to use such names as “urticaria” and “eczema” as if they denoted diseases which are in themselves clinical entities.

The names just quoted, and many others, belong to forms of dermatitis to which almost all persons are more or less liable, and about which there is nothing whatever specific.

Because a man has an irritable skin, and is in the habit of scratching it, we ought not to say that he has got the disease “prurigo”; or if for convenience we use that name, it should be with a clear mental conception of what we mean by it.

Great restriction of thought results from the premature employment of substantive names.

It is safer in order to clearness of thought to say that a man has a pruriginous skin, that he is prone to urticarous irritation, or that his skin readily becomes eczematous, than to say that he has “prurigo,” “urticaria,” or “eczema.”

No. CLXXXV.—*Euphoria.*

Question. What is the meaning of the word Euphoria?

Answer. According to Power and Sedgwick (*vide* New Sydenham Society's Lexicon) it is “a word used to express well-being, or the perfect ease and comfort of healthy

persons, especially when the sensation occurs to a sick person." Although classical, it has for long been almost disused (at any rate, in London).

Q. Is it likely to be again employed ?

A. It is said to have found favour in connection with the Opium Commission, as expressing better than any other the real motive of the opium consumer.

Q. Then it is not synonymous with good health ?

A. No, not exactly. It means the sense of bodily comfort which may not always be present in states of sound organic health, and which may be attained sometimes in spite of its absence.

Q. Then it is possible to obtain euphoria by means which do not necessarily conduce to health ?

A. Yes, certainly. It may be only a temporary attainment, and may be followed by ill consequences.

Q. In a general way, may it be held that the agents which secure euphoria conduce to health ?

A. Probably it may, for a state of comfort and absence of pain is conducive to healthy nutrition, and the reverse.

Q. But we are not to regard them as food stuffs ?

A. No, not exactly such, though it is impossible in any case to deny them that position. We do not know but what theine and caffeine may be used for the direct nutriment of brain cells. Sydney Smith asserted that a man's intellect depended upon the quantity of coffee that he drank, and he may have been right in regarding it as a brain-feeder. Probably, however, these agents have other and more immediate influence.

Q. You count, then, tea and coffee as agents conducive to euphoria ?

A. Yes ; our motive for taking them is in the main the wish to secure the sense of comfort which we know will follow. We take them without feeling sure they will feed us.

Q. But do we not take food from the same instinctive feeling ; and does not the very plainest food often conduce to euphoria ?

A. Unquestionably. In each instance it is appetite, or longing, which leads us.

No. CLXXXVI.—*The Parasites of Malaria.*

Q. What is the relation of the malaria parasite to the blood corpuscles ?

A. It is developed in the interior of the red corpuscles.

Q. What is the nature of the parasite zoologically ?

A. An amœba.

Q. Does the parasite ever become free ?

A. Yes ; by rupture of the containing blood cell its spores may become free.

Q. What is the action of quinine upon the parasite ?

A. It kills it.

Q. At what stage are spores formed ?

A. At a late period of growth, when the amœba is ripe for multiplication.

Q. Can free spores be recognised in the blood ?

A. Yes ; in certain malignant forms of malaria, free spores, around masses of pigment, may be found.

Q. What appearances are presented in the earliest stages ?

A. A pale or whitish body, crescentic, round or branched, is seen in the blood corpuscle.

Q. What is the next stage ?

A. The body increases in size, becomes more irregular in form, and acquires pigment granules.

Q. What are the final stages ?

A. The parasite fills the blood cell, developes (by fission) spores, which are often arranged symmetrically in a wheel-like pattern. It may lastly become free, and undergo pigimentary degeneration.

Q. Under what conditions are flagella developed ?

A. The parasite, when free, occasionally throws out flagella.

Q. Can the parasite be cultivated ?

A. No success has as yet attended the attempt.

Q. Can it be transferred from human blood to that of animals ?

A. Apparently not.

Q. Can it be transferred from man to man ?

A. Yes, but many experiments have failed. Success depends upon the age of the parasite.

Q. What is the pathology of "malaria comatosa"?

A. The blood cells in the pia mater are crowded with parasites, and sometimes many of the latter are found in a free state.

Q. What is the conjectural association of the parasite with the rigors of malarial fever?

A. It is supposed that each rigor denotes a reproductive stage in the parasites.

Q. Are the parasites of the quotidian, tertian, and quartan types of malarial fever specifically distinct?

A. It is as yet somewhat doubtful. Unquestionably they develop into different forms, and the diagnosis may often be made by the microscope.

Q. What are the chief differences between the tertian and quartan parasites?

A. The spore formations in the quartan are larger and arranged with more symmetry. Other differences concern size and pigmentation.

Q. What becomes of the young spores after they are free?

A. They attach themselves to blood corpuscles and pass into their interior.

Q. In what part of the parasite is the pigment first formed?

A. In the periphery; but when segmentation is approaching it collects in the centre.

No. CLXXXVII.—*Vaccination.*

Q. What is meant by a foveated vaccination scar?

A. The term foveated is used in contrast with that of plain and unpitted, and denotes the condition of pitting and of radiation of lines of scar from a central point. The margin of a foveated scar is usually more or less notched.

Q. If a pregnant woman suffer from small-pox, will her infant be susceptible of vaccination?

A. If a pregnant woman suffer from small-pox at any considerable period before her delivery (say more than two weeks), it is probable that her infant will be rendered

insusceptible of vaccination. If, however, only a few days have elapsed, then the vaccination of the infant on birth will run its normal course.

No. CLXXXVIII.—*Paralysis of the Portio Dura.*

Q. What is "Bell's paralysis?"

A. Paralysis of the portio-dura muscles, in consequence of some affection of its trunk during the passage through the temporal bone.

Q. In what does Bell's paralysis differ from facial paralysis from cerebral causes?

A. All the facial muscles are involved, whereas in the cerebral cases the paralysis is never complete as regards the orbicularis of the eye and the occipito-frontalis.

Q. In cases of hemiplegia from cerebral disease, is the seventh-nerve usually affected?

A. Yes; but the muscles it supplies fail only slightly and partially.

Q. Is the paralysis of the face on the same side as that of the limbs, and on that opposite to the lesion?

A. Yes.

Q. How would you explain a case in which, after a fall on the head (see Watson's Lectures, vol. i., page 502), a patient had paralysis of the limbs on one side and facial paralysis on the other?

A. It is probable that an injury to the brain had been received on the side opposite to the hemiplegia of the limbs, and a fracture of the temporal bone on the same side as the paralysis of the face.

Q. What symptoms would you look for in corroboration of such a diagnosis?

A. The patient would probably be deaf on the side on which his face was paralysed, and there would be probably found, if carefully searched for, some slight defect in the muscles of the face on the same side as the hemiplegia.

Q. Would there be any other fact which might assist the diagnosis?

A. It is very probable that there might have been bleeding

from the ear on the side on which the facial paralysis was present.

Q. In Bell's paralysis are all the muscles supplied by the facial involved?

A. No; for certain twigs are given off from the nerve before it enters the auditory canal, and these would escape.

Q. If a distinguished author on the science and practice of medicine has written respecting hemiplegia that "The facial or portio-dura nerve is not generally touched by the paralyzing lesion," does he make an error?

A. Yes, undoubtedly, for it is always more or less involved.

Q. If the same author adds to his statement, "It is the fifth-nerve which is generally involved more or less in hemiplegia," does he in any sense correct his error?

A. No; for he appears to think that the fifth gives motor-fibres to the face, which is not the fact.

Q. How about the buccinator?

A. The fifth gives only sensory branches to this muscle. It is the facial which gives it motor power.

Q. How do you prove that?

A. By observing the baggy condition of the cheek in cases of Bell's paralysis.

Q. What, then, has the fifth-nerve to do with the muscles of the face?

A. Nothing whatever as to motion. It supplies only the deeper muscles of mastication,—the temporal, masseter, and the pterygoids.

Q. Is the statement just quoted, that the fifth-nerve is implicated in cerebral hemiplegia, correct?

A. Very probably it may be, but the defects in the muscles which it supplies are not conspicuous, nor in many cases easily appreciated even when they are searched for.

Q. How would you search for them?

A. By placing the fingers over the temporal and masseter regions, and then telling the patient to clench his jaws. In most cases of cerebral disease it is difficult to avoid error in this trial.

Q. You spoke just now of paralysis of the palate. What symptoms denote that condition, and how would you test it?

A. The uvula is very usually curved towards the sound side, and the arch of the palate is ill-marked on the paralysed one. On making the patient say "Ah," there is no movement on the paralysed side, but a dimple forms in the other.

Q. Are any other cranial nerves besides the portio dura and the fifth commonly involved in cerebral hemiplegia?

A. The upper nerves, the olfactory, optic, motor nerves of eye-ball and auditory usually escape. But the motor nerves of the tongue and pharynx are often more or less involved.

Q. How would you recognise paralysis of the muscles of the tongue?

A. The tongue when extruded will be slightly pointed to one side (the paralysed), being pushed over by the muscles remaining sound.

Q. Would the paralysed side of the tongue be the same as that of the hemiplegic limbs?

A. Yes.

Q. Is it, then, true that in cerebral hemiplegia all the motor lesions, whether from cranial or spinal nerves, will be crossed; that is, be on the opposite side to the disease of the brain?

A. Yes, undoubtedly. All exceptions, or apparent exceptions, to this rule will require special explanation.

No. CLXXXIX.—*The Treatment of Strangulated Hernia.*

Q. What do you consider the chief cause of danger in strangulated hernia?

A. The damage which the gut receives from the strangulation. This may act immediately by causing shock, or, secondarily, by local changes.

Q. What ought to be the main object in treatment?

A. To relieve the strangulation as promptly as possible. Let there be no delay.

Q. Does not the hope of succeeding by the taxis often cause delay?

A. Undoubtedly. The patient hopes and his surgeon hopes, and thus often delay occurs.

Q. Is not this an argument against the taxis?

A. Not the least, for the judicious surgeon on failing with the taxis will proceed at once to the operation. Neither he nor the method he advocates are responsible for the delays of others.

Q. With whom do you consider the responsibility chiefly rests for the delays which all acknowledge and all lament?

A. I fear it must be recognised that it rests largely with the family-surgeon who first sees the case, and who, but too often, underrates the importance of the early symptoms and the danger which attends the case. It rests also partly with the patient, who does the same, and who not unfrequently refuses a consultation which he suspects will lead to an operation.

Q. You do not then give any share of the blame to the consultants?

A. I do not suppose that any delay ever takes place after once a consultant has seen the patient, unless it be from the patient's obstinacy. For several generations all hospital surgeons have fully recognised the absolute necessity for prompt measures.

Q. You attach much importance to the patient's dread of an operation?

A. I do. Many a patient will refuse to submit to an operation who would gladly take an anæsthetic if he thought that his rupture would then be reduced without cutting. It is possible that he may have had it down before and got it back after a little waiting, and he hopes for a like result again.

Q. Do you suspect, then, that the urgent recommendation of immediate operations which prevails at the present day has a deterrent influence upon patients, and thus causes delay?

A. I think it very possible. If a family surgeon says to his hernia-patient, "You must go into the hospital, and they will put it back for you," the patient goes at once; but if he says, "You must go and have an operation," but too often he is met with a refusal.

Q. What are the terms in which you advise patients under such circumstances?

A. I first make up my mind as to whether the case is

unsuited for the taxis, and if it be not, I usually make a brief trial without an anæsthetic. If unsuccessful I then say, "You see that I cannot get it back, but if you will be put under chloroform I shall then, in all probability, succeed. You must understand, however, that if I don't succeed an operation will be absolutely necessary, and I must have your permission to go on with it at once." I am entitled to speak to my patient with much confidence as regards the taxis because I always take great pains with it, and very usually do succeed.

Q. Do you meet with many cases which you regard as unsuited for the taxis?

A. Really, but very few. Certainly in nine out of ten, and I should think a much larger proportion, I give it a patient trial.

Q. If an operation is needed, do you endeavour to avoid opening the sac?

A. I regard all cases which I have thought suitable for the taxis as being also those in which it is better to avoid opening the sac.

Q. But if you do not open the sac I presume you do not attempt radical cure?

A. You must understand that what I am saying refers chiefly to my practice of ten or twenty years ago. The proceedings for radical cure, which I believe to be distinctly improvements, have come into use since my hernia days. I have been eight years out of hospital work, and my practice in hernia cases which was once large has diminished to a small one. In spite, however, of the benefits of radical cure I still prefer to operate in cases of strangulation without opening the sac, and to leave that triumph to a more suitable time.

Q. What do you mean by a more suitable time?

A. I mean one when the serous membranes are not in an inflamed state. I cannot help a suspicion that it is much more dangerous to expose inflamed intestine, or an inflamed sac, to the air than to operate for radical cure when the parts are healthy. To that I attribute the undeniable fact that hernia-operators in the present day seem unable to reduce their percentages of fatality, whilst operations for radical cure are done with but little risk.

Q. Do you suppose that the modern practice of removal of the sac, with a view to radical cure, has conduced to an increase of fatality in operations for strangulated hernia of late years?

A. I see no reason to suspect it; but I am sorry to observe that it does not appear to have done much to diminish it.

Q. You believe, then, that the exposure of sac and intestine in an inflamed state to the air is in itself a source of increased danger?

A. I am forced to that conclusion by observing that scarcely any patients die after successful taxis, whilst many in precisely similar conditions, like duration of strangulation, &c., do so after operations.

Q. But is not that an argument in favour of early operations, before the bowel is inflamed? Do you think that there would be danger of that kind if operations were done within six or even twelve hours of strangulation?

A. Understand me, the protest against delay in strangulated hernia is one which every hospital surgeon for the last half century has upheld. I claim that no one was more zealous in it than myself during the years that I taught surgery. The plea for the taxis is not an advocacy of delay. On the contrary, it will lead, I contend, to the avoidance of delay. If you hope to have the chance of operating in most cases of strangulated hernia within twelve or twenty-four hours, you are hoping for what you will never get. The more strongly you advise the operation, the more will such cases elude you. Besides, a man dexterous in taxis will never need to operate at all if he can see his cases as early as that.

Q. What are the conditions which would lead you to decline the taxis altogether?

A. The duration of strangulation, if the symptoms have been urgent, will count for something. I should, however, be guided chiefly by the state of the patient and the state of the hernial tumour. If the patient were low and ill, I should like to see the intestine, and so also if the parts surrounding the sac were otherwise than quite free from œdematous swelling.

Q. Do you ever see bad cases in private practice?

A. The worst cases which I have seen have been in

private. In one case the patient died, with an unrelieved strangulated femoral hernia, just before I got to the house. In another the sac and skin had given way, and a faecal fistula was already formed. In a third, very recently, I was taken into Jermyn Street to see a wealthy gentleman moribund with a gangrenous inguinal hernia. This patient lived almost within stone's throw of half the hospital surgeons of the metropolis, but he had resisted all recommendations of further advice in the fear that an operation would result.

Q. Probably in this last instance the taxis had been abused ?

A. No, indeed it had not. The surgeon in attendance had almost wholly contented himself by repeatedly advising a consultation. We must deal with human nature as it is, and adapt our measures to the prejudices and misconceptions of our patients. It is not possible to enact that all hernia patients shall come under the care of specially skilled surgeons within twelve hours.

Q. You think that the old practice as regards the taxis conduced better to the end in view than the present strenuous advocacy of operations ?

A. Most distinctly I do. Let the public and the family practitioner understand that the consultant will probably succeed without operation, and the chances of an early consultation become much increased.

Q. I believe that you advocate attempts at taxis in cases of abdominal obstruction in which there is no external hernia ?

A. I do. My rule of practice is the same in both classes of cases, and it is as promptly as possible to put the patient under an anæsthetic and attempt by manipulations, &c., to effect taxis. If the attempt fails, then operate at once. In neither case is the taxis to be regarded as a substitute for the operation ; but in both it should be fairly tried first and at as early a period as possible.

Q. Do you then advise abdominal taxis in all cases of abdominal obstruction ?

A. Invariably. It ought to be the first operative measure thought of as soon as such a diagnosis is made. If done promptly and efficiently I believe that in a large majority of cases nothing further would be required.

No. CXC.—*On the Treatment of Persons Drowned.*

Q. In the case of a drowned person is it good practice to lift the body by the legs in order to "let the water run out?"

A. Yes; provided it can be done easily and with gentleness.

Q. Is it true that water really enters the lungs?

A. Yes; the old notion that spasm of the glottis always prevents the entrance of water is a fallacy. The presence of water in the air passages is indeed one of the main causes of danger to persons who have been taken out of the water still alive.

Q. Are there then any reasons why systematic inversion of the body should not be practised in all cases?

A. If it be roughly or awkwardly done, or if efficient help be not at hand to do it quickly, it may become in itself dangerous. When the heart is but just beating anything like rough usage may easily stop it.

Q. What other means may be taken to facilitate the escape of the water?

A. The body may be placed for a short time face downwards with the head dependent.

Q. What is the best position after this has been done?

A. On one side, with the chest supported and the head low. This will allow fluid to trickle out and will also empty the lung which is uppermost.

Q. Is there a grave objection to artificial respiration (Sylvester or other) in the dorsal position?

A. Yes; it may pump the fluid backwards and forwards in the larger tubes, promote the secretion of mucus and, by sucking it deeper in, still further clog the air-cells.*

Q. Is the supine position in itself bad?

A. On the back it is impossible for fluid in the pharynx to escape. Fluid regurgitated from the stomach may also easily be sucked into the lungs. It is a very dangerous position, as has been so well taught us by Dr. Bowles.

* I have written these answers after a conversation with Dr. Bowles, whose opinions for the most part they express. See his paper in *Medico-Chirurgical Transactions*, Vol. 92.

Q. Is artificial respiration of great importance in these cases?

A. If the breathing have really stopped, it is essential, but not otherwise. If the patient be breathing ever so feebly, it is best to put him in a proper position, and then wait and watch. That position should be on one side.

Q. What is the best method of artificial respiration in such cases?

A. The "Marshall Hall" method.

Q. How is it done?

A. The body is turned, fifteen times in the minute, from face to side, and whilst on the face pressure is made on the spine.

Q. Ought there to be any change from one side to the other?

A. On no account. If one side be kept to, the fluid gravitates into the lower lung and leaves the other free for respiration. This advantage would be at once lost if the sides were changed.

Q. Has the side position any other advantages?

A. Yes; it allows the tongue to fall forwards, and thus prevents a form of choking which is very common if the patient be supine.

Q. You hold, then, that the injunction *ne quid nimis* applies to some extent to the treatment of the drowned.

A. Certainly. It is easy to do harm when aiming to do good. Artificial respiration with the patient on his back is usually hurtful, and may take away the chance of life. The case is very different from one of suffocation without fluid or of chloroform poisoning. In the latter, artificial respiration has no drawbacks.

Q. What other measures for resuscitation are to be adopted?

A. They will depend very much upon the temperature of the water to which the body has been exposed. It may be very important to restore warmth by clothing and frictions. In all cases it is desirable by rubbing the limbs to favour the return of circulation in them.

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